

# Understanding Decisions Made on Asylum Applications in Host Countries

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## Abstract

Millions of forcibly displaced people apply for asylum every year facing uncertain outcomes. What can explain cross-country heterogeneity in these outcomes? This study provides estimates of the determinants of asylum admission policies in host countries using a bilateral panel data set covering 201 origin and 113 destination countries between 2000 and 2017. The paper shows that in high-income

countries, unlike in low- and middle-income countries, approval policies are influenced by political factors such as political polarization and electoral periods. The study also finds that macroeconomic factors, labor market outcomes, and public spending can play an important role in final decisions on asylum.

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UNDERSTANDING DECISIONS MADE ON ASYLUM APPLICATIONS IN HOST  
COUNTRIES

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## 1 INTRODUCTION

The number of forcibly displaced persons around the world reached 70.8 million at the end of 2017, up from 38 million a decade ago.<sup>1</sup> There are many reasons to expect the persistence of this phenomenon in the foreseeable future because the number of countries becoming fragile due to conflicts, political instability or natural disasters has been increasing in recent years. Even if not all displaced persons qualify for refugee status as defined by the 1951 Refugee Convention, the number of asylum applications continued to increase, particularly in countries facing a massive influx of displaced persons.<sup>2</sup>

Irrespective of the underlying causes of asylum applications, the growth in forced displacement has prompted many host countries to reconsider their asylum policies in an effort to distinguish between genuine refugees and economic migrants. The concentration of asylum applications in some host countries has also revived the debate about fair burden-sharing and harmonization of asylum policies (Hatton, 2016), while the growth in asylum applications has generated new fears about cultural identity, security and labor market competition (Dustmann et al., 2017). As a result, many host countries have resorted to more restrictive asylum policies.

Asylum policies and types of applicants vary across countries and these may result in different acceptance rates.<sup>3</sup> These differences do not necessarily mean a deliberate national strategy to deter asylum seekers. By assuming that host countries try to be as fair as possible and hence do not discriminate among asylum seekers for reasons other than the merit of their asylum claim, substantial variation across host countries could reflect heterogeneity in the complexity of asylum applications received and their likely merit. In addition, one can argue that heterogeneous recognition rates arise from the variety of policies and regulations used by countries to assess the quality of asylum claims. In effect, the 1951 Geneva Convention relating to the status of refugees and its 1967 protocol that constitute the international framework for asylum policy are not overly prescriptive and countries can provide their own interpretation for the purpose of asylum policies they want to implement.

Can we identify some measurable factors explaining the processing of individual asylum applications and their outcomes? In this paper, we want to investigate the reasons why host countries differ in terms of *efficiency* (if procedures for status recognition are fast or slow), *generosity* (the number of fa-

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<sup>1</sup>UNHCR (2018)

<sup>2</sup>Note, however, that 2017 and 2018 saw a decrease in asylum applications. It is important to note that the analysis made throughout the paper is on “individual” asylum applications used interchangeably with asylum applications and asylum claims.

<sup>3</sup>This does not hold true for protection granted on a group or prima facie basis.

favorable decisions upon asylum claims), and the *type of protection* granted (full refugee status or other forms of protection).<sup>4</sup> In particular, we aim at better understanding the role of political and economic factors that may contribute to explain such heterogeneity. The analysis is based on a panel data set constructed from the United Nations High Commissioner for Refugees (UNHCR) public data on individual asylum claims and decisions. It includes 201 origin and 113 destination countries covering the period between 2000 and 2017.

Our regression results indicate that political factors in host high-income countries matter. We find that election years are positively correlated with asylum applications' processing time and that they have a significant effect on the number of asylum claims rejected. This suggests more efficiency at the expense of favorable decisions upon individual asylum applications. We also find that political polarization is negatively associated with both the total number of applications processed and the number of rejected asylum applications. This means that political polarization in host countries can lead to less efficiency and more selective admissions. In contrast, we do not find any evidence of election years and political polarization having an effect on asylum claims in low and middle-income countries. This shows that there is a difference in the political responses to asylum applications between high-income and middle- and low-income countries. We also find that applying for asylum in neighboring countries (contiguity variable) increases the number of favorable decisions of any kind made on asylum claims and reduces the number of applications rejected. Distance shows the opposite effect, being negatively and significantly associated with asylum applications approved. The choice of destination of asylum applications based on the economic size of host countries appears to be inefficient because GDP in host countries is negatively and significantly associated with the number of applications processed and the number of favorable decisions. We also show that, to a lesser extent, labor market conditions matter, that sound fiscal policy (proxied by a fiscal crisis dummy) is relevant, and that government expenditure over GDP does not favor full recognition of asylum applications.

Conventional analyses of asylum applications focus on the determinants of asylum applications, but only a handful of studies investigate the determinants of refugee status determination (Neumayer, 2005; Missirian and Schlenker, 2017). Our study differs from Neumayer (2005) in terms of the time period considered and countries covered, the empirical design used and, most importantly, the results obtained regarding several factors at play in destination countries.<sup>5</sup> Our study is also related to recent work by Missirian and Schlenker

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<sup>4</sup>We borrow the concepts of *efficiency* and *generosity* relating to asylum claims from Dustmann et al. (2017).

<sup>5</sup>He found that only the full status protection is negatively associated with the stock of

(2017) who examined the outcomes of asylum claims in host countries. Unlike these authors who hypothesize close scrutiny of applications or their inadequacy to explain the important rejection rates within the European Union, we show by regression analysis some measurable factors at play in the decision-making process in host countries.

The paper is organized as follows. Section (2) offers a brief literature review. In section (3), we present a background analysis of asylum applications revolving around their geographical orientation. In section (4), we outline our empirical strategy, followed by the interpretation of regression results in section (5). After checking the robustness of our econometric results in section (6), the last section concludes and presents some policy implications.

## 2 LITERATURE REVIEW

The literature on refugees has been scarce for a long time before growing as a result of more frequent and important refugee crises around the world, and also more demand from policymakers seeking effective solutions (Verme and Schuettler, 2019). Although many countries, as the Geneva Convention for Refugees signatories, are keen to provide asylum, they are concerned about how to detect individuals in real need of protection and how to share large caseloads of asylum seekers with other countries. In the absence of harmonized asylum policies, host countries developed their own strategies which can make them less attractive to asylum seekers. Several studies have been conducted around the determinants of asylum applications by investigating factors such as political terror in countries of origin, the role of geography and cultural proximity, and the attractiveness of some destination countries. Other studies have also attempted to measure and assess whether deterrent asylum policies are effective. We offer an overview of those aspects of the literature on refugees before focusing on policies regarding the determination of asylum claims.

### 2.1 PUSH FACTORS IN SOURCE COUNTRIES AND GEOGRAPHICAL INFLUENCE

The worldwide refugee stocks and asylum flows are partially determined by various conditions in the countries of origin. Several cross-sectional studies have identified violent wars and political terror in origin countries as relevant to explain forced displacement.<sup>6</sup> Hence, Davenport et al. (2003) showed that forced displacement results from conflicts of any kind – genocide, civil war,

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asylum seekers by country of origin and the unemployment rate in destination countries. We will elaborate more on the difference in terms of results as well as the empirical design.

<sup>6</sup>In general, some factors increasing incentives to migrate may also constitute an obstacle to migration. For instance, on the one hand, violence can force people to flee from their homes country. On the other hand, because individuals can lose their livelihood during conflict, they may have great difficulty affording the moving cost.

dissident conflicts – and political regime transitions. Some studies go beyond the role of violence in source countries to explain refugee displacement by also exploring other source-country factors. Using a panel data covering 48 origin countries and 19 host countries from 1997 to 2006, [Hatton \(2009\)](#) found that although violence, political instability and terror in source countries determine asylum flows to the West, these factors have less explanatory power regarding worldwide applications during the 1980s. He then emphasized the economic factors in the countries of origin as inducing refugee movement and orientating it towards developed countries. In another study, he found a negative correlation between asylum migration and the GDP per capita in the country of origin; in the proportion that asylum applications decrease by 6% with a 10% increase in GDP ([Hatton, 2017](#)).

It is important to stress that there are additional factors influencing choice of destination countries than the statistically significant ones previously mentioned. Even for asylum seekers originating from the same country, so many individual characteristics may lead them to choose different destination countries. From a theoretical standpoint, refugee movements and the choice of a specific destination result from utility-maximizing behavior. This cost benefit analysis also applies to movement of asylum seekers although in most cases, imminent threats in the origin country render it impossible. In the context of severe political instability and violence, the closest and most accessible safe destination country is what asylum seekers are looking for, meaning that geographic proximity takes precedence over economic and other considerations. Another important distinction between economic migrants and refugees is made by [Ceriani and Verme \(2018\)](#) who show that the former are less risk-averse and migrate seeking a better standard of living while the latter are more risk-averse and migrate in the hope of finding a secure living environment and a minimum quality of life.

## **2.2 PULL FACTORS IN DESTINATION COUNTRIES**

Studies investigating conditions in destination countries that attract asylum seekers are based on the premise that factors influencing the choice of destination made by economic migrants might also influence asylum seekers' choice. Under the utility-maximizing framework, asylum seekers will try to increase the benefits associated with migration while reducing its costs. Therefore, beneficial destination countries are those with low unemployment rate, high standard of living and generous welfare provisions. As leaving family and friends and adapting to a new destination country may represent important costs for migrants, they will value destinations with geographical, cultural and language proximity with their country of origin. Asylum seekers could also value destinations with a large share of refugees originating from their home country

so as to enjoy cultural proximity with some residents in the new location and make easier the prospect of employment.

In a panel analysis of 20 destination countries covering the period 1985-1999, [Thielemann \(2003\)](#) showed that the unemployment rate in host countries is negatively associated with their share of asylum applications. He also highlighted the positive effect of the stock of foreign-born populations. Unlike [Thielemann \(2003\)](#), [Neumayer \(2004\)](#), in a panel study between 1982 and 1999, accounted for the heterogeneity across destinations arising from the source-country composition of asylum claims. He found that host countries' unemployment rate is insignificant in the presence of the level and the growth rate of GDP per capita that enter positively in regressions where the dependent variable is the share of each destination in a country's total applications. [Hatton \(2004\)](#) was also interested in some factors explaining asylum applications directed to 14 EU countries between 1981 and 1999. He shows that relative income between origin-destination countries matters as well as the unemployment rate and the cumulative stock of applications in destination countries. He also finds the dominant effect of GDP growth since other economic variables and even variables denoting immigration policy turn to be insignificant. On the attractiveness of destination countries, [Hatton \(2016\)](#) found that unemployment rates are more relevant than GDP per capita in determining the geographical orientation of asylum applications. In terms of magnitude, the effect remains small as a decrease of 4 percentage points in unemployment rate induces 1 percent rise in asylum claims.

### 2.3 UNFAVORABLE REACTIONS TO ASYLUM SEEKERS

Asylum seekers represent a growing cause of concern in many host countries because of fears related to costs or the legitimacy of asylum applications. Also, illegal immigration flows often associated with refugee crises cause hostility among host country population even if these populations are favorable to legitimate asylum claims. Another cause for concern is the fact that asylum seekers whose applications are rejected may stay irregularly in the destination country. In effect, except for few countries, host countries do not receive asylum claims from abroad.<sup>7</sup> As a result, a large number of asylum seekers apply within the host country they have entered irregularly or with a valid visa ([Hatton, 2017](#)).

[Hatton \(2016\)](#) shows that anti-immigration sentiment in public opinion is particularly more pronounced during the recessionary period of the global financial crisis but less noticeable over the long run. In another work based on the European Social Survey (ESS), he evaluated the country-level change of anti-immigration opinion between 2002 and 2014, at 2.5 percentage points;

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<sup>7</sup>Some host countries receive asylum claims from asylum seekers that reach their border.



while anti-refugee sentiment decreased by 15 percentage points (Hatton, 2017). While the economic impact of immigration may shape anti-immigration sentiments, Gorinas and Pytliková (2017) report that the way immigrants culturally influence their host communities is central. There is also important heterogeneity among host populations in their attitudes towards refugees. Dustmann et al. (2018) show how the importance of refugee allocation in shaping voting outcomes in Denmark differs between rural and urban municipalities. In effect, they show that refugee allocation increases the vote share of anti-immigration parties in the rural municipalities while it decreases them in the largest and urban municipalities. They point out that, although pre-characteristics such as exposure to immigrants, crime, and welfare dependency explain the votes for anti-immigration parties in rural municipalities, they do not in urban municipalities. They then evidence that as natives in urban and rural municipalities experience different exposure to refugees, their attitudes towards refugees differ, hence their voting choice.

#### 2.4 HARMONIZATION INITIATIVES FOR ASYLUM POLICIES

Some basic and standard refugee rights are defined in the Convention relating to the status of refugees agreed in Geneva in 1951 and that the 1967 Protocol to the Geneva Convention has extended to refugees outside Europe and those displaced before 1951. Two clauses at the heart of the Geneva Convention are the definition of a refugee as a person facing a *well-founded fear of persecution* in his or her country of origin and the *non-refoulement* concept protecting refugees against forced return to a country where they would be at risk of persecution. Although the Convention defines other standards for the treatment of asylum seekers, it remains vague on several aspects (covered or not) so as to give room to signatory members for their own interpretation. Even if the definition of a refugee gives room to different interpretations and hence different approval policies, policy activism was limited until the large increase in asylum applications in the 1980s. In the late 1980s, asylum policies become restrictive across several dimensions particularly in European countries which were subject to massive flows of asylum claims resulting from political and economic upheaval in Eastern Europe and the former Soviet Union. Nowadays, the Geneva Convention for refugees seems problematic because of the massive flow of asylum seekers that host countries feel not prepared to manage.

European host countries tried to adopt a series of resolutions and agreements to harmonize asylum policies (1986 Single European Act, 1990 Schengen Convention etc.). One important step toward harmonization of asylum policies is the 1990 Dublin Convention that came into force in 1997. Within the core objective of harmonizing asylum policies, there are some important principles to underline. The first country crossed by asylum seekers is given

the responsibility to assess asylum claims. Subsequently, the principle of "safe third country" allowed states to reject asylum claims for which applicants transited through a country deemed "safe" and where those asylum seekers could have applied for asylum. Also, there is no appeal procedure possible for asylum claims rejected on the "manifestly unfounded" basis, that is asylum claims considered irrelevant. Finally, host countries resort to expedited procedure for asylum claims from "safe countries of origin" where there is no serious risk of persecution.

## 2.5 NATIONAL ASYLUM POLICIES

Changes in asylum policies may result from a temporary rise in asylum applications and in the incapacity of extra-national coordination of asylum applications, that lead to more political pressures and the sentiment that each host country attempts to avoid the burden of hosting asylum seekers by deflecting asylum policies to other countries.

In an effort to discourage asylum applications and asylum seekers flows, many host countries could resort to different strategies. Access to the territory could be tightened by intensive border controls and visa enforcement. Once asylum seekers managed to cross borders, host countries could act on the speed of administrative procedures of asylum applications and their outcomes. And if some asylum claims met approval, host countries could grant complementary protection instead of refugee status according to the Geneva Convention for Refugees. Alternatively, they could limit rights granted to refugees in terms of permanent stay, family reunification and welfare benefits. Similarly, there exist direct asylum policies limiting the choice of residency, access to the labor market and welfare benefits.

Measuring the speed of administrative processing time of asylum application requires information not available such as the human and financial resources devoted to asylum claims in host countries. To circumvent this, [Dustmann et al. \(2017\)](#) suggest an indirect way by calculating the share of applications evaluated over the annual total received by host countries so as to compare the efficiency of application processing. Not only did they find important heterogeneity among EU countries, they also show that the number of applications sent to EU countries, normalized by their population, does not determine the processing time of asylum claims.<sup>8</sup> In other words, the processing time of asylum applications seems to be discretionary and not the result of whether host countries face large inflows of asylum claims.

Looking at the determinants of asylum applications to EU countries be-

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<sup>8</sup>The study covered 15 EU countries, Norway and Switzerland. Note that this result may be conditional to the choice of this specific normalization variable.

tween 1981 and 1989 and controlling for both origin and destination country characteristics, [Hatton \(2004\)](#) showed that the deterrent effect pursued by EU countries through various asylum policies is effective. To properly assess asylum policies, [Hatton \(2004\)](#) divides them in four categories. *Access* policies, designed to reinforce countries' borders, range from visa enforcement to carrier sanctions. *Procedure* policies revolve around asylum applications processing such as the above-mentioned concepts of "safe third country" and "manifestly unfounded claims" that accompanied the Dublin Convention. *Outcome* asylum policies denote approval policies of asylum claims coupled with accelerated deportation policies in case of rejections. The goal is to deter asylum applications by delaying processing time and reducing the number of refugee status granted, which results in more rejection or at best more subsidiary forms of humanitarian protection. *Treatment* policies include labor market restrictions, welfare benefits limitation and even dispersal and detention policies. In [Hatton \(2009\)](#), he showed that policies limiting access to territory and those decreasing favorable decisions on asylum applications have the most effective deterrent effect. He also found that asylum policies do not have uniform effects because they capture almost entirely the fall in applications since 1997 but much less between 2001 and 2006.

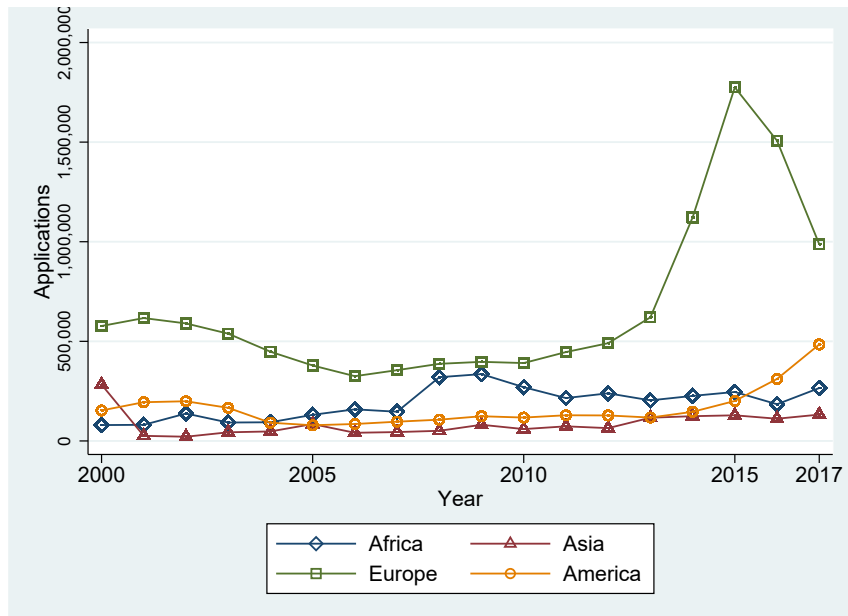
### 3 DATA AND SUMMARY STATISTICS

Before turning to the econometric analysis, we present some informative stylized facts using the UNHCR data on refugees and asylum seekers. We illustrate how refugee data and their variants can be analyzed, particularly the geographical orientation of asylum seekers, which is a subject of particular importance in view of the high policy interest in it. The analysis consists of descriptive statistics and charts typically needed to picture forced displacement worldwide.

#### 3.1 DISTRIBUTION OF REFUGEES AND ASYLUM APPLICATIONS

The recent Syrian refugee crisis revived the debate over the burden of refugees particularly in Europe. That refugees may represent a burden to host countries has two aspects. On the one hand, unlike immigration flows that prompt destination countries to select migrants who can contribute to their economy, asylum seekers are granted refugees status only on humanitarian grounds. On the other hand, countries are not equally exposed to the flows of asylum seekers. [Figure \(1\)](#) shows the annual number of asylum applications to destination countries grouped at the continental level over the period 2000-2017. One can clearly observe that a large number of asylum applications are directed towards Europe, with a peak observed in 2015 as a consequence of the Syrian refugees crisis.

Figure 1: Individual asylum applications by destination over 2000-2017



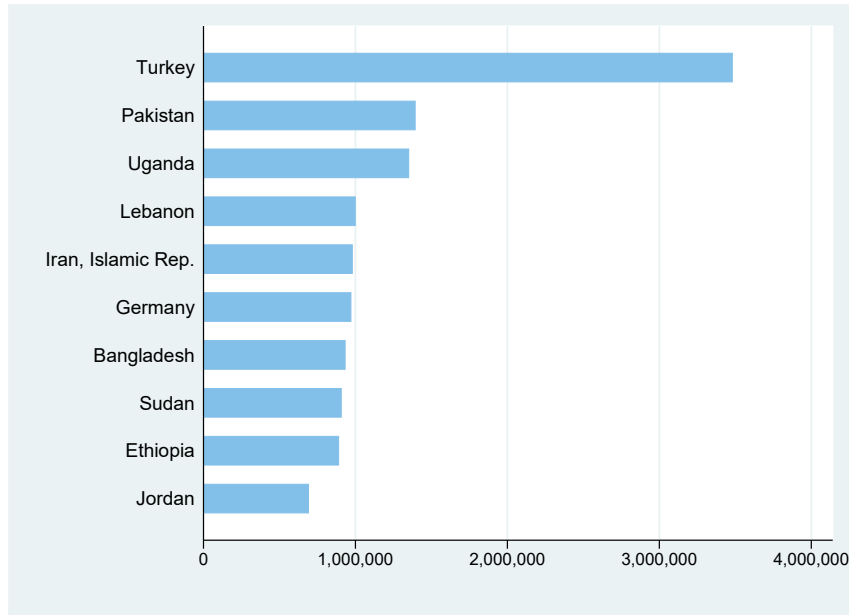
Source: Author's calculation based on UNHCR data. Note that the countries of the Middle East are part of Asia and the countries of North-Africa are part of Africa.

While European countries are the most exposed to asylum seekers, it is interesting to observe that a high proportion of refugees live in developing countries.<sup>9</sup> Figure (2) depicts the top 10 host countries of refugees in 2017 consisting almost entirely of low and middle-income countries.<sup>10</sup> Turkey ranked first and Germany is the only European union country in the list because of the Syrian refugee crisis.

<sup>9</sup>Recall that most refugees are recognized on a group basis and do not undergo individual refugee status determination procedures.

<sup>10</sup>This chart takes into account group recognition as well as states without a national asylum system.

Figure 2: Top ten destination countries for refugees, 2017



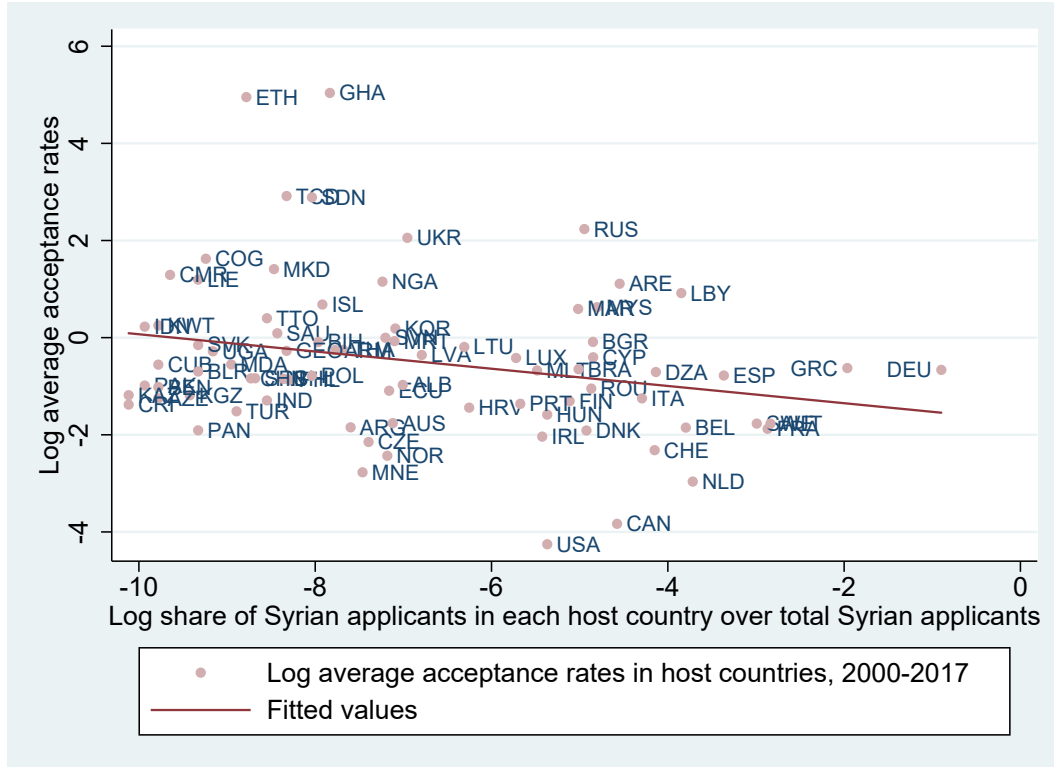
Source: Author's calculation based on UNHCR data

Neumayer (2005) observed a large increase in total applications lodged in Europe between 1980 and 1990, accounting for about 75 percent of all asylum applications lodged in industrialized countries; but surprisingly, refugees in developed countries represent less than 30 percent of the 10.6 million refugees worldwide by the end of 2002 reported by the United Nations High Commission for Refugees. Put differently, developing countries receive more refugees than developed countries, even if the latter face a large number of asylum applications. This would suggest that only a few asylum claims meet approval in European countries.

### 3.2 GEOGRAPHICAL ORIENTATION OF ASYLUM SEEKERS

As previously discussed, asylum applications are biased towards developed countries. It is therefore important to know whether countries wherein asylum seekers apply are more or less favorable to refugees. Characterizing destination countries of asylum seekers is useful to assess their chances to be given refugees status. Using the data on refugee status determination by each host country could help determine which origin-destination corridors increase asylum seekers' chances to be granted full refugee status or any other forms of protection. Although several factors play a role in determining countries' openness to refugees, we will limit ourselves at this stage to the geographical distribution of refugees based on decisions made on asylum applications by host countries.

Figure 3: Geographical orientation of Syrian refugees, 2017



Source: Author's calculation based on UNHCR data

In order to assess the efficiency of the geographical orientation of Syrian asylum seekers, we construct a scatter plot using as an example the share of Syrian applications received by each host country in the Syrian total asylum applications on the horizontal axis. On the vertical axis we represent the average growth rate of Syrian asylum applications approved by each of their host countries between 2000 and 2017. In figure (3) each dot represents a host country. The regression line drawn slopes down suggesting an unfavorable orientation of Syrian asylum seekers. The same pattern is also observed for four other countries in the top 10 origin countries of refugees in 2017: Somalia, Afghanistan, Eritrea and Sudan.<sup>11</sup> Although examples do not demonstrate a systematic pattern, figure (3) provides a useful factual basis for discussion about whether asylum seekers target countries which may be favorable to their claim.

<sup>11</sup>These plots are reported in the appendix as well as the correspondence between country names and the three-letter names used in figures (3) and (5).

Similarly, [Missirian and Schlenker \(2017\)](#) provide some interesting trends in asylum applications by showing that over the period 2000-2015, more than 60 percent of asylum applications are directed towards EU or OECD countries, and that most of the applications to the EU and OECD countries come from non-neighbors. Although the EU countries receive the large majority of applicants, they present the lowest acceptance rate (13 percent) of refugee status according to the 1951 Geneva Convention. The acceptance rates average 25 percent in non-EU-OECD countries and 30 percent in the rest of the world.

## 4 EMPIRICAL DESIGN

We are interested in looking at the efficiency and generosity aspects of asylum policies. We take advantage of the bilateral structure of the asylum application data provided by the UNHCR whereby decisions upon asylum applications are specific to both destination and origin countries.

### 4.1 ECONOMETRIC MODEL

Let  $d$  denote destination country in which asylum application is sent by a refugee from the origin country  $o$  at time  $t$ . We specify two equations to test the efficiency of asylum application processing and the generosity of admission policy in host countries. In its general formulation, our equations are:

$$\begin{aligned} \text{Logdecision}_{dot} = & \sigma_1 + \sigma_2 \text{LogpendingApplication}_{dot-1} \\ & + \sigma_3 \text{LogcurrentApplication}_{dot} + \sigma_4 \text{orig}_{ot} + \sigma_5 \text{dest}_{dt} \quad (1) \\ & + \sigma_6 \text{year}_t + \delta' \text{Log}X_{dot} + \epsilon_{dot} \end{aligned}$$

$$\begin{aligned} \text{Logtypedecision}_{dot} = & \sigma_1 + \sigma_2 \text{Logdecision}_{dot} + \sigma_3 \text{LogpendingApplication}_{dot-1} \\ & + \sigma_4 \text{LogcurrentApplication}_{dot} + \sigma_5 \text{orig}_{ot} + \sigma_6 \text{dest}_{dt} \quad (2) \\ & + \sigma_7 \text{year}_t + \delta' \text{Log}X_{dot} + \epsilon_{dot} \end{aligned}$$

The standard procedure for estimating an econometric model based on dyadic panel data requires to take the natural logarithms of all variables so that one can perform the OLS estimations. Besides, a correct specification of the estimation equation relies on the specific research interest: whether the variables of interest are country-specific, bilateral, time-varying or time-invariant. Unbiased estimates of the impact of distance and other bilateral variables are obtained by including origin and destination dummies  $\text{orig}_{ot}, \text{dest}_{dt}$ , which represent country effects<sup>12</sup> in the model, so as to capture all country-specific

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<sup>12</sup>As the unit of observation is country-pair, we distinguish country effects, denoting dummy variables for each country, from country-pair fixed effects.

characteristics. We allow these country effects to change over time. But if for example our model relies on differences in some specific variables across host countries to explain decision patterns on asylum applications, then we will introduce time-invariant origin and destination dummies  $orig_o, dest_d$  instead of time-varying ones  $orig_{ot}, dest_{dt}$  like in equations (1) and (2); because country-specific explanatory variables would be perfectly collinear with time-varying country-specific dummies. In addition to country effects, adding country-pair fixed effects could mitigate bias due to country-pair heterogeneity. However, as we are interested in the bilateral time-invariant coefficient, the fixed effects, if included in the model, would lead to perfect collinearity.

## 4.2 DEPENDENT VARIABLES

The left-hand side variable in equation (1) is the number of decisions made on asylum applications at the country-pair level, which is correlated to the number of total asylum applications. In regression language, this means that not controlling for asylum applications would lead to omitted variable bias. We include both pending and current asylum applications in the equation because decisions in any given year may refer to asylum claims introduced in the same year or earlier. Doing so can be justified by the fact that the UNHCR generally divides asylum applications into pending start-year, applied during year, and pending end-year applications.

To investigate heterogeneity across countries on decisions made on asylum applications, the left-hand side variable in equation (2) represents each type of decision on asylum applications. The UNHCR classifies decisions on asylum applications into four categories. One termed *recognized* is the grant of refugee status according to the 1951 Geneva Convention. Another favorable decision is complementary protection labeled *other decisions*. Applications denied are termed *rejected* and the last category is the *otherwise closed* comprising applications not determined because of administrative closures. All but the category *otherwise closed* will be used as the dependent variable in distinct regression specification. We will resort to the two types of protection accorded and the rejection variable to measure the *generosity* of approval policies; and one may expect acceptance variables and the rejection one to behave in the opposite way with potential explanatory variables.

Because annual decisions do not necessarily (if ever) equate to annual asylum applications lodged, the number of decisions influences the distribution of the type of decisions upon the asylum claims; hence the control for the number of decisions in equation (2). In addition, we also discussed above the efficiency (application processing time) and generosity (grant of protection) as two ways countries may use to deter application flow and reported that efficiency is not reached at the cost of high rejection of asylum claims – less



generosity – (Dustmann et al., 2017). This implies a positive correlation between the efficiency and generosity variables. The left-hand variable being the type of decisions upon asylum applications (generosity of admission policy), we therefore control for the number of decisions upon applications representing the efficiency variable. In doing so, we do not infer any causal relationship among the two variables. In effect, it can be that countries inclined to accept refugees will be faster in the determination of asylum claims, either because of less rigorous scrutiny or more resources devoted to application processing. Another strategy is to normalize the left-hand side variable. This approach is, however, criticized as one needs to decide upon different normalization variables; a problem easily avoided by controlling for all potential normalization variables in our regressions.

Another important issue is that differences in recognition rates could be the result of selection bias at country or individual level. In fact, host countries could differ in their recognition rates because of the source country of asylum applications, on the premise that country-specific characteristics (conflicts, political terror) are relevant. Also, even if the determination of asylum claims should be based essentially on the well-founded fear of persecutions, individual characteristics such as education and wealth could determine the ability of asylum seekers to reach host countries distant from their country of origin and to submit complete asylum applications. We therefore control for selection due to source country heterogeneity but not for individual heterogeneity that will require to match detailed information such as education, age, sex on each applicant to the decision upon each application. Unfortunately, the UNHCR data do not offer this level of precision.

### 4.3 EXPLANATORY VARIABLES

Although asylum applications may be seen as a case-specific analysis, it remains that factors in countries of origin forcing people to seek asylum can influence the likely acceptance of asylum claims. Therefore, it becomes relevant to control for these aspects. Instead of modeling possible candidate push factors of asylum seeker outflows, we resort to time-variant country effects to capture time variant factors affecting the determination of asylum claims from each country of origin.

We are specifically interested in a set of explanatory variables capturing heterogeneity across destination countries on socio-economic and political aspects, but also on cultural and geographical proximity with the country of origin of asylum seekers. We then group the variables of interest in the analysis into three categories: cultural and geographical proximity between the source and the destination countries, socio-economic characteristics and political factors in destination countries.

To test the relevance of geographical and cultural proximity, we include a dummy variable denoting contiguity between origin and destination countries, a variable measuring distance between countries weighted by the size of their population, and a dummy variable for the presence of common official of primary language. Distance matters because the proximity to the country of origin can be considered as a proxy of the host country's knowledge of the country of origin and may help host countries to easily collect information on asylum seekers for screening purpose. Language proximity is also relevant by helping asylum applicants to submit complete and likely successful applications and by making easier the application processing for host countries. Controlling for contiguity between origin and destination countries is crucial in the context of the "safe third country" policy implemented in many EU countries. This set of data is from the center for research and expertise on the world economy (CEPII).

To assess whether political factors have an impact on the number of asylum applications cleared and the determination of refugee status, we include a dummy for election years and a measure of political polarization in host countries. This set of data is taken from the database of political institutions (DPI). We resort to the type of political system (parliamentary or presidential) to determine whether executive or legislative elections are the most relevant in host countries. For semi parliamentary regimes, years of elections are both executive and legislative elections.

The political polarization variable has two features that are crucial to interpret the political distance (different or opposite view) between political parties and to address the challenge posed by coalition governments and divided oppositions. Unless information is missing, a score is given to each party's political orientation - Right (1); Left (3); Center (2); No information (0)-; and polarization is measured by the maximum difference between the chief executive's party's value and the values of the three largest government parties and the largest opposition party. Note that there is no polarization (meaning zero value) if elections are not competitive or if the chief executive's party has an absolute majority in the legislature. Although imperfect, one can infer that government parties encompass coalition situations and that the issue of divided oppositions is circumvented by considering the largest opposition party.

In general, right-wing political parties might be less favorable to receive asylum seekers in line with their position regarding immigration. Conversely, one may expect fewer negative decisions on asylum applications from left-wing political parties. However, in a situation where the public opinion on refugees is negative, the position of even refugee-friendly political parties could change. In line with the median voter theory, the logic is that political parties irrespective of their original perception of asylum will react to the shift of the median

voter. To avoid, however, being accused of opportunistic behavior by enacting asylum policies opposite to their political orientation, some governing parties could delay decisions made on asylum applications during election years instead of formal rejections. But if the ruling party gains in efficiency by increasing the number of applications processed, this is to lose in generosity by increasing rejection rates.

To see whether economic conditions prompt host countries to resort to unfavorable decisions on asylum applications, we account for the level of GDP. The way GDP may affect the outcome of asylum claims depends on what it represents for asylum seekers. If GDP is a signal of economic conditions prevailing in host countries, it can be positively associated with favorable decisions and negatively associated with rejections. However, if GDP denotes rich destination countries irrespective of the prevailing fiscal condition and unemployment rates, there can be a negative link between favorable decisions and GDP level. In addition to GDP, we include a binary variable denoting fiscal crisis, that is, periods of extreme fiscal distress when governments have not been able to contain large fiscal imbalances, leading to the adoption of extreme measures such as debt default and monetization of the deficit (Medas et al., 2018).

We also want to test the impact of population density in host countries on recognition rates, but also the labor force participation rate. We use the population density variable taken from the World Development Indicators (WDI). And from the International Labour Organization (ILO) database, we consider the ratio of employment to the working-age population and also the labor force participation over the working-age population. As an alternative, it would be possible to use the unemployment rate in host countries.

The attractiveness of host countries is also represented by welfare benefits. Since we cannot quantify welfare benefits to refugees, we use two proxies: total government expenditure over GDP and the ratio of subsidies over public expenditure. Attractive countries in this regard are also likely to be those that will try to toughen their approval policies in order to deter asylum applications. We then expect from variables measuring attractiveness a negative correlation with favorable decisions or fast application processing.

Table 1: DESCRIPTIVE STATISTICS

VARIABLES	Observations	Mean	Standard Deviation	Min	Max
Totaldecisions	99,074	199.4	3,326	0	798,294
Full protection	99,074	42.18	838.4	0	172,319
Partial protection	99,074	20.05	1,056	0	248,201
Rejections	99,074	79.56	823.3	0	147,063
Totapendingstartyear	99,074	223.4	5,150	0	940,668
Appliedduringyear	99,074	200.7	2,270	0	271,237
contiguity	93,426	0.0571	0.232	0	1
Distance (pop weight, km)	93,326	5,660	3,880	52.99	19,491
Com. Lang. Official	93,426	0.211	0.408	0	1
Election	310,662	0.0726	0.260	0	1
Polarization	81,956	0.908	0.938	0	2
GDP (constant \$US)	283,276	5.715e+11	1.873e+12	6.055e+07	1.730e+13
Fiscal crises	277,609	0.332	0.471	0	1
Employment over Pop. 15+	287,369	56.66	10.53	28.93	87.82
Labor participation over Pop.	287,369	67.83	9.871	33.45	89.98
Gov. Expense over GDP	172,336	28.34	12.86	1.878	98.17
Subsidies transfers over expense	162,892	45.95	19.99	0.0154	83.13
Population density	280,738	135.6	397.3	1.479	7,807

Notes: Observations reported in regression tables may differ due to listwise deletion of missing data. "Full" protection refers to refugee status according to Geneva Convention for Refugees and "Partial" protection is complementary or subsidiary protection.

## 5 EMPIRICAL RESULTS

Table (2) presents variables that appear to be strongly linked to approval policies (total and type of decisions on asylum applications) and those that do not. Results on the determinants of applications processed are reported in column (1) and those on the type of decisions made are shown in columns (2) to (4). Unlike the results in columns (1) to (4), those in columns (5) to (8) report regression estimates in which we control for country-pair fixed effects. The goal is to account for time-invariant factors specific to each country-pair that may increase or decrease their asylum applications, but are irrelevant to application flows that each country of a given country-pair send to or receive from third countries. Note however that some of our bilateral variables being invariant, their estimations become impossible for perfect collinearity.

The role of political factors, among other things, on approval policies is the main interest of this study. Two variables represent political aspects in host countries: election years seem to accelerate application processing while polarization has the opposite effect. It is important to note that inefficiency or delayed application processing is a strategy one may expect from host countries wanting to deter asylum applications. In this respect, the positive correlation between applications processed and election years could be surprising. However, countries could also deter asylum applications by combining efficiency on asylum applications with unfavorable decisions. This second strategy is the one

that emerges from our regressions. In effect, although we observe in column (1) a positive and significant correlation between election years and asylum applications processed, there is no apparent link between election years and favorable decisions in columns (2) and (3), but a clearly negative and significant effect of election years on asylum applications rejected. The way political polarization in host countries acts on approval policies is different as it leads to less efficiency and more subsidiary protection approval. Political polarization, denoting how polarized executive parties are with principle parties of the legislature, could cripple asylum applications processing, thereby leading to subsidiary protection as a middle ground position. Regression results, reported in columns (5) to (8) and controlling for country-pair fixed effects, confirm the finding that election years and polarization are key to understanding asylum approval policies. The coefficients of election years and polarization are also similar in columns (1) through (8).

With respect to the economic size of host countries, the coefficients of GDP are negatively and significantly correlated with the number of applications processed and the number of favorable decisions. This is crucial as we discussed the inefficient orientation of asylum applications towards developed countries. In effect, while asylum seekers perceive the economic size as an indicator of the likelihood of approval of asylum claims, host countries see in that variable the reason why they are attractive to asylum seekers. As a result, these countries are less efficient and less generous in their approval policies. Supporting this interpretation is the finding that higher income levels in host countries lead to lower recognition rates (Neumayer, 2005). Results also do not differ if we use real GDP per capita to measure the attractiveness of destination countries. We then explore the importance of fiscal crises as more relevant to capture the economic context in host countries. The results indicate that fiscal crises have no significant effect on the type of decisions made, but are negatively associated with the number of applications processed. That is, fiscal crises can act on the speed to clear asylum claims in host countries. The GDP and fiscal crisis effects hold whether we control or not for the country-pair fixed effects.

With respect to the labor market, the proportion of a country's population that is employed is negatively and significantly linked to total decisions made. The same variable is positively correlated with partial decisions while negatively associated with rejections. Another slightly different indicator referring to the labor market is the economically active proportion of the population. It also shows a negative correlation with total applications processed but acts positively and significantly on the rejection variable. While the two variables that we used reflect well the labor market conditions, another simpler way is to use the unemployment rates in host countries. In doing so, we do not find clear-cut results as the unemployment rate is positively correlated with

the total number of decisions, insignificantly linked to neither the full acceptance decisions nor the rejected applications, and negatively and significantly associated with partial forms of protection.<sup>13</sup> A possible explanation could be that the relationship between asylum approval policies and the unemployment rate is more context-specific than general. In support of this is the extensive meta-analysis by [Verme and Schuettler \(2019\)](#) which revealed varying conclusions regarding the impact of forced displacement on employment in host communities.

We then turn to the importance of government spending in host countries by using subsidy transfers over expenditure and government expenditure over GDP. The former has no significant effect neither on applications processed nor on their outcomes while the latter is positively and significantly correlated with rejections and negatively associated with full recognition of asylum applications. These two variables are intended to proxy, although imperfectly, the fiscal burden resulting from asylum applications.

Looking at variables representing geographical and language proximity, contiguity and common official language are positively, though not significant statistically, correlated with applications processed. If significant, these two variables should be in line with the logic that neighboring countries and language proximity are accelerating factors of application processing. But the importance of geographical proximity is clearly shown by the distance variable entering with a significant and negative coefficient. Columns (2) to (4) present the way these variables act on the type of decisions made on asylum applications. There is positive and significant correlation between contiguity and both full and complementary acceptance of asylum claims while contiguity reduces the number of applications rejected. This result is supportive of stylized facts on the presence of refugees in neighboring host countries. Unlike contiguity, geographical remoteness does not favor acceptance of asylum claims, and this can be put into perspective with the "safe third country" concept stating that asylum seekers must apply in the first safe country they entered while escaping from persecution. We do not see any reason why common official language may affect positively full acceptance of asylum applications.

In the category of control variables, we first see that both current and pending asylum applications are positively associated with total applications processed, suggesting that more applications received leads to more applications processed. But as a large number of applications could require more human and financial resources, a non-linear relationship may emerge between applications received and those processed. This is not the interest in this study. With respect to the types of decisions made, it appears that pending applica-

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<sup>13</sup>Results with the unemployment rate are not reported, but are available upon request.

tions are negatively and significantly associated with full refugee status while current applications are not. A possible interpretation is that pending applications are a signal of asylum claims not easy to evaluate. This interpretation is in line with results in column (3) where pending asylum applications are positively and significantly linked to complementary protection whereas the opposite is true with current applications. Column (4) indicates that both pending and current applications also increase the number of applications rejected, but with a tenuous impact. These results are in line with [Dustmann et al. \(2017\)](#) showing that efficiency regarding application processing is not necessarily at the expense of less favorable decisions. Finally, population density, as a control variable, shows no apparent link with full refugee status but is negatively linked to subsidiary protection and positively linked with the rejection of applications. Thus, it would be interesting to explore the effect of dispersal policies implemented in some host countries and which consist in spreading asylum-seekers and refugees over the national territory to avoid concentration in major cities. However, a city level and not a country level is a more conducive framework for testing dispersal policies.

Table 2: DETERMINANTS OF REFUGEE STATUS DETERMINATION

Variables in log	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Totaldecisions	Full	Partial	Rejected	Totaldecisions	Full	Partial	Rejected
<b>POLITIC</b>								
Election	0.041*** (0.009)	0.009 (0.015)	-0.007 (0.028)	0.024*** (0.008)	0.033*** (0.010)	-0.002 (0.015)	0.005 (0.028)	0.025*** (0.008)
Polarization	-0.077*** (0.009)	-0.022* (0.012)	0.118** (0.054)	-0.099*** (0.010)	-0.077*** (0.009)	-0.018 (0.013)	0.101* (0.056)	-0.098*** (0.010)
<b>MACROECONOMIC</b>								
GDP (constant \$US)	-0.360*** (0.122)	-0.654*** (0.240)	-2.539*** (0.603)	0.079 (0.171)	-0.372*** (0.134)	-0.656** (0.261)	-2.981*** (0.649)	-0.044 (0.186)
Fiscal crises	-0.143*** (0.032)	-0.058 (0.059)	0.105 (0.103)	-0.039 (0.030)	-0.171*** (0.033)	-0.056 (0.061)	0.159 (0.105)	-0.044 (0.031)
<b>LABOR MARKET</b>								
Emploi over Pop. 15+	-0.514* (0.308)	-0.626 (0.627)	3.024** (1.209)	-0.826** (0.324)	-0.374 (0.328)	-0.252 (0.664)	4.170*** (1.275)	-0.752** (0.342)
Labor participation over Pop. 15+	-0.806** (0.406)	1.066 (0.847)	-0.255 (1.989)	1.360** (0.550)	-1.014** (0.437)	0.170 (0.902)	-1.939 (2.131)	1.807*** (0.577)
<b>PUBLIC SPENDING</b>								
Gov. Expense over GDP	-0.077 (0.060)	-0.466*** (0.121)	-0.241 (0.242)	0.184*** (0.060)	-0.030 (0.063)	-0.480*** (0.127)	-0.507* (0.268)	0.184*** (0.062)
Subsidies transfers over Expense	0.018 (0.033)	0.029 (0.060)	0.223 (0.340)	0.007 (0.046)	-0.013 (0.036)	0.016 (0.066)	0.281 (0.354)	-0.006 (0.051)
<b>PROXIMITY</b>								
Contiguity	0.021 (0.038)	0.364*** (0.108)	0.491** (0.223)	-0.167*** (0.060)				
Distance (pop_wt, km)	-0.054*** (0.012)	-0.016 (0.041)	-0.242*** (0.082)	0.036** (0.016)				
Com. Lang. Official	0.028 (0.017)	0.119** (0.050)	-0.010 (0.109)	-0.004 (0.023)				
<b>CONTROLS</b>								
Totaldecisions		0.541*** (0.020)	0.533*** (0.044)	0.883*** (0.010)		0.543*** (0.024)	0.584*** (0.048)	0.883*** (0.012)
Totapendingstartyear	0.373*** (0.007)	-0.023* (0.013)	0.102*** (0.029)	0.017** (0.007)	0.352*** (0.009)	-0.034** (0.014)	0.039 (0.030)	0.007 (0.007)
Appliedduringyear	0.573*** (0.008)	0.119*** (0.015)	-0.050* (0.028)	0.016* (0.008)	0.488*** (0.010)	0.095*** (0.019)	-0.066** (0.033)	0.005 (0.009)
Population Density	0.944*** (0.212)	0.025 (0.452)	-2.836** (1.191)	1.248*** (0.288)	1.004*** (0.236)	-0.034 (0.494)	-4.452*** (1.295)	1.519*** (0.316)
Constant	12.050*** (2.976)	13.106** (5.714)	55.033*** (14.826)	-9.013** (4.055)	12.469*** (3.702)	18.785*** (7.030)	92.242*** (18.069)	-10.191** (4.848)
Origin-Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Destination FE	yes	yes	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Country-pair FE	No	No	No	No	yes	yes	yes	yes
Observations	27,056	15,110	6,338	23,701	28,292	15,954	6,830	24,753
Number of pairid	4,378	2,833	1,552	3,931	4,599	2,999	1,652	4,123
R squared	0.610	0.498	0.492	0.728	0.612	0.508	0.509	0.734

Notes: "Full" protection refers to refugee status according to Geneva Convention for Refugees and "Partial" protection is complementary or subsidiary protection. \*, \*\*, and \*\*\* show significance levels at 10%, 5% and 1% respectively. Standard errors robust against heteroskedasticity are in parentheses.

## 6 ROBUSTNESS CHECKS

### 6.1 HETEROGENEITY IN SAMPLE

We run regressions on a subsample of OECD destination countries to account for the notion that these countries being likely overburdened, economic and political factors would be more relevant to explain asylum admission policy.



Regression estimates on OECD destination countries reported in columns (1) to (8) look similar to those based on the whole sample. Regarding political factors, namely election years and polarization, regressions with the OECD host countries subsample do not show any evidence that heterogeneity plays a role in explaining the results.

However, some differences are present in the block of the remaining explanatory variables. Regarding macroeconomic aspects, GDP is positively and significantly correlated with the total decisions, suggesting that more resources are dedicated to asylum application processing in OECD countries. In support of this interpretation, both government expenditure and subsidy transfers over GDP are positively and significantly associated with the total number of decisions made on asylum applications. We also observe that GDP is negatively and significantly linked to unfavorable decisions (rejections). But in terms of magnitude, the GDP role in reducing the rejection of asylum applications is outweighed by its adverse effect on both the full and partial favorable decisions made on applications. Note also in the case of OECD countries, the negative and significant association of fiscal crises with full refugee status. Looking at variables denoting proximity, contiguity seems less important in the application processing and refugee status determination while distance and common official language are more conclusive. The total number of decisions decreases with asylum applications from distant countries while it increases with common official language.

We now focus on non-OECD countries, composed of low and middle-income countries, as another important subsample to explore. In effect, unlike OECD countries, low and middle-income countries may be less subject to political factors in their asylum application processing and refugee status determination. There are two consequential differences emerging from regressions on the non-OECD destinations reported in table (7) in the appendix. Firstly, there is no evidence that election years and polarization are essential for the understanding of asylum approval policies. Secondly, there is no apparent link between many control variables (fiscal crises, labor market conditions, subsidies transfers over expenditure, contiguity) and asylum approval policies. Therefore, one can infer from these results that asylum approval policies in low and middle-income countries are less influenced by factors beyond the pertinence of the asylum claims.

Table 3: DETERMINANTS OF REFUGEE STATUS DETERMINATION IN OECD HOST COUNTRIES

Variables in log	(1) Totaldecisions	(2) Full	(3) Partial	(4) Rejected	(5) Totaldecisions	(6) Full	(7) Partial	(8) Rejected
<b>POLITIC</b>								
Election	0.040*** (0.010)	0.008 (0.016)	0.027 (0.028)	0.033*** (0.008)	0.030*** (0.010)	-0.007 (0.015)	0.046 (0.028)	0.037*** (0.008)
Polarization	-0.096*** (0.010)	-0.014 (0.013)	0.097* (0.056)	-0.103*** (0.009)	-0.091*** (0.010)	-0.010 (0.014)	0.079 (0.058)	-0.104*** (0.009)
<b>MACROECONOMIC</b>								
GDP (constant \$US)	0.337** (0.164)	-0.770* (0.416)	-3.394*** (0.786)	-0.820*** (0.206)	0.324* (0.167)	-0.814* (0.424)	-3.613*** (0.848)	-0.986*** (0.212)
Fiscal crises	-0.434*** (0.041)	-0.243** (0.108)	0.057 (0.123)	-0.032 (0.044)	-0.441*** (0.041)	-0.237** (0.108)	0.110 (0.131)	-0.023 (0.044)
<b>LABOR MARKET</b>								
Emploi over Pop. 15+	-1.288*** (0.384)	-1.996*** (0.763)	3.612** (1.411)	-0.239 (0.388)	-1.028*** (0.393)	-1.836** (0.794)	4.352*** (1.504)	-0.124 (0.397)
Labor participation over Pop. 15+	-0.988* (0.511)	1.884* (1.116)	-1.418 (2.397)	2.008*** (0.712)	-0.988* (0.540)	1.365 (1.149)	-3.165 (2.516)	2.288*** (0.717)
<b>PUBLIC SPENDING</b>								
Gov. Expense over GDP	0.491*** (0.082)	-1.043*** (0.213)	-0.537 (0.401)	0.146 (0.092)	0.588*** (0.084)	-1.105*** (0.211)	-1.007** (0.442)	0.134 (0.095)
Subsidies transfers over Expense	0.542*** (0.089)	-0.384 (0.281)	-0.030 (0.383)	0.112 (0.106)	0.558*** (0.093)	-0.303 (0.281)	0.028 (0.411)	0.079 (0.108)
<b>PROXIMITY</b>								
Contiguity	-0.001 (0.050)	0.484* (0.265)	0.158 (0.223)	-0.046 (0.108)				
Distance (pop_wt, km)	-0.070*** (0.013)	0.122** (0.054)	-0.019 (0.095)	0.000 (0.020)				
Com. Lang. Official	0.041** (0.018)	0.230*** (0.061)	0.177 (0.122)	-0.001 (0.024)				
<b>CONTROLS</b>								
Totaldecisions		0.579*** (0.024)	0.484*** (0.039)	0.911*** (0.011)		0.586*** (0.030)	0.549*** (0.054)	0.899*** (0.015)
Totapendingstartyear	0.363*** (0.008)	-0.016 (0.014)	0.136*** (0.025)	0.030*** (0.007)	0.331*** (0.010)	-0.033** (0.016)	0.084** (0.034)	0.014* (0.008)
Appliedduringyear	0.603*** (0.008)	0.066*** (0.018)	-0.051* (0.030)	0.009 (0.009)	0.528*** (0.011)	0.065*** (0.021)	-0.077** (0.037)	-0.004 (0.010)
Population Density	-0.384 (0.325)	-0.179 (0.817)	-2.978* (1.578)	2.905*** (0.359)	-0.534 (0.343)	0.021 (0.835)	-4.297** (1.692)	3.126*** (0.368)
Constant				10.377* (5.889)	-2.155 (4.373)	28.102*** (10.872)	116.834*** (20.193)	5.019 (5.929)
Origin-Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Destination FE	yes	yes	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Country-pair FE	No	No	No	No	yes	yes	yes	yes
Observations	20,392	11,874	5,631	18,684	21,321	12,526	6,058	19,542
Number of pairid	2,796	1,912	1,250	2,633	2,940	2,019	1,325	2,767
R squared	0.684	0.542	0.510	0.761	0.682	0.548	0.522	0.765

Notes: "Full" protection refers to refugee status according to Geneva Convention for Refugees and "Partial" protection is complementary or subsidiary protection. \*, \*\*, and \*\*\* show significance levels at 10%, 5% and 1% respectively. Standard errors robust against heteroskedasticity and serial correlation, and clustered by country pairs are in parentheses.

## 6.2 MULTIWAY CLUSTERING

The fixed-effects estimator relies on the assumption that the error terms are serially uncorrelated within cluster. Therefore, controlling for clustering is useful to ensure that standard errors are correctly estimated. We then resort to the cluster-robust inference proposed by [Cameron et al. \(2011\)](#), allowing for

multiway clustering. In the case of country-pair observations, these authors recommend to control for the two-way error correlation that may arise across the two countries in each pair. The multiway clustering regressions reported in table (4) show that some explanatory variables have a tenuous impact while others remain remarkably stable. The two political variables, namely elections and polarization match our previous findings. The coefficients of GDP are also significant, but at the 5% level. The two variables denoting the labor market conditions lose their significance statistically. Government expenditure over GDP remains negatively correlated with full refugee status and positively associated with rejected asylum claims, although at the 5% level. With respect to proximity variables, contiguity remains significant and negatively correlated with rejections while distance is still negatively and significantly associated with the total number of decisions. Finally, only the positive relationship between population density and rejected asylum claims holds.

Table 4: DETERMINANTS OF REFUGEE STATUS DETERMINATION

Variables in log	(1) Totaldecisions	(2) Full	(3) Partial	(4) Rejected	(5) Totaldecisions	(6) Full	(7) Partial	(8) Rejected
<b>POLITIC</b>								
Election	0.042** (0.021)	0.010 (0.046)	-0.006 (0.069)	0.026** (0.012)	0.037* (0.019)	0.005 (0.031)	0.004 (0.076)	0.024*** (0.009)
Polarization	-0.073*** (0.023)	-0.008 (0.030)	0.134 (0.141)	-0.097*** (0.016)	-0.076*** (0.026)	-0.014 (0.024)	0.144 (0.173)	-0.096*** (0.017)
<b>MACROECONOMIC</b>								
GDP (constant \$US)	-0.426* (0.254)	-0.817* (0.457)	-2.261* (1.196)	0.053 (0.256)	-0.424 (0.292)	-0.735* (0.415)	-2.711** (1.326)	-0.117 (0.327)
Fiscal crises	-0.143 (0.102)	0.002 (0.170)	0.040 (0.234)	-0.047 (0.051)	-0.173 (0.106)	-0.019 (0.141)	0.147 (0.227)	-0.050 (0.053)
<b>LABOR MARKET</b>								
Emploi over Pop. 15+	-0.447 (1.053)	-0.978 (1.929)	1.630 (2.908)	-0.647 (0.538)	-0.511 (1.263)	-0.609 (2.094)	3.330 (4.711)	-0.371 (0.619)
Labor participation over Pop. 15+	-0.941 (1.237)	1.376 (2.796)	1.171 (5.523)	0.667 (1.511)	-0.916 (1.621)	0.566 (3.219)	-1.147 (7.453)	1.127 (1.618)
<b>PUBLIC SPENDING</b>								
Gov. Expense over GDP	-0.072 (0.185)	-0.607 (0.461)	-0.279 (0.507)	0.192* (0.106)	-0.035 (0.197)	-0.635* (0.328)	-0.559 (0.670)	0.210* (0.111)
Subsidies transfers over Expense	0.012 (0.049)	0.025 (0.087)	0.086 (0.922)	0.013 (0.069)	-0.019 (0.055)	-0.014 (0.083)	0.036 (0.994)	0.007 (0.068)
<b>PROXIMITY</b>								
Contiguity	0.023 (0.040)	0.330 (0.219)	0.304 (0.367)	-0.132* (0.079)				
Distance (pop_wt, km)	-0.050*** (0.013)	0.085 (0.109)	-0.196 (0.193)	0.020 (0.014)				
Com. Lang. Official	0.020 (0.019)	0.102 (0.063)	-0.155 (0.182)	0.009 (0.016)				
<b>CONTROLS</b>								
Totaldecisions		0.595*** (0.089)	0.523*** (0.155)	0.873*** (0.026)		0.578*** (0.103)	0.595*** (0.163)	0.870*** (0.032)
Totapendingstartyear	0.385*** (0.037)	-0.017 (0.043)	0.156 (0.098)	0.034** (0.013)	0.372*** (0.052)	-0.019 (0.036)	0.059 (0.074)	0.008 (0.011)
Appliedduringyear	0.562*** (0.038)	0.135*** (0.041)	-0.015 (0.054)	0.017 (0.019)	0.495*** (0.052)	0.133*** (0.042)	-0.018 (0.068)	-0.011 (0.018)
Population Density	1.029 (0.670)	0.417 (1.233)	-1.894 (3.154)	1.198** (0.518)	1.091 (0.766)	0.287 (1.363)	-3.355 (4.051)	1.539** (0.667)
Constant	13.895** (6.986)	16.452 (13.490)	47.207 (36.738)	-6.389 (9.276)	13.459 (8.216)	17.781 (12.316)	63.195 (39.466)	-6.388 (9.904)
Origin FE	yes	yes	yes	yes	yes	yes	yes	yes
Destination FE	yes	yes	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Country-pair FE	No	No	No	No	yes	yes	yes	yes
Observations	27,056	15,110	6,338	23,701	28,292	15,954	6,830	24,753
R-squared	0.895	0.756	0.687	0.895	0.913	0.863	0.820	0.928

Notes: "Full" protection refers to refugee status according to Geneva Convention for Refugees and "Partial" protection is complementary or subsidiary protection. \*, \*\*, and \*\*\* show significance levels at 10%, 5% and 1% respectively. Standard errors robust against heteroskedasticity and serial correlation, and clustered by country pairs are in parentheses.

### 6.3 OVERFITTING ISSUES

The overfitting problem arises in regression models with too many terms for the number of observations and misleads R-squared values, regression coefficients, and p-values. A sufficient number of observations for each term in

the regression model is therefore needed to get reliable estimates. This is in conjunction with the degrees of freedom indicating the number of observations that vary freely as a parameter estimate consumes part of independent information available in the data set. Simulation exercises recommend at least 10-15 observations for each term in a linear model (Babyak, 2004). Applying this rule in the context of this work, risks exist that the model will be overfitted in the presence of the time-varying origin dummies and country-pair dummies. To address the overfitting problem, we therefore consider time invariant origin dummies in each regression and alternately control for destination fixed effects, country-pair and year fixed effects.

Table (5) reports regression results without destination fixed effects in columns (1) to (4) while country-pair and year fixed effects are excluded from regressions displayed in columns (5) to (8). Results indicate that election and political polarization remain determinant in explaining refugee status determination. The two variables of the macroeconomic block namely fiscal crises and GDP still hold except in columns (6) and (7) where GDP is no longer significantly associated with full and partial recognitions. Like previous results, subsidy transfer does not explain refugee status determination while government expenditure over GDP remains negatively associated with full refugee status and positively correlated with rejected asylum claims. With regard to proximity variables and other control block variables, results match our previous findings.

Table 5: DETERMINANTS OF REFUGEE STATUS DETERMINATION

VARIABLES	(1) Totaldecisions	(2) Full	(3) Partial	(4) Rejected	(5) Totaldecisions	(6) Full	(7) Partial	(8) Rejected
<b>Politic</b>								
Election	0.040*** (0.009)	0.008 (0.014)	0.006 (0.025)	0.022*** (0.008)	0.038*** (0.009)	0.009 (0.013)	0.010 (0.023)	0.025*** (0.008)
Polarization	-0.081*** (0.009)	-0.024* (0.013)	0.121** (0.052)	-0.096*** (0.010)	-0.072*** (0.008)	-0.002 (0.012)	0.119** (0.047)	-0.113*** (0.010)
<b>Macroeconomic</b>								
GDP (constant \$US)	-0.391*** (0.130)	-0.701*** (0.243)	-2.826*** (0.627)	-0.110 (0.192)	-0.675*** (0.077)	0.133 (0.171)	-0.518 (0.384)	-0.821*** (0.124)
Fiscal crises	-0.180*** (0.034)	-0.025 (0.060)	0.163 (0.115)	-0.044 (0.032)	-0.136*** (0.031)	-0.015 (0.057)	0.159 (0.108)	-0.043 (0.030)
<b>Labor Market</b>								
Emploi over Pop. 15+	-0.531 (0.323)	-0.720 (0.678)	3.327** (1.307)	-0.412 (0.355)	-0.054 (0.234)	-2.475*** (0.568)	0.048 (0.863)	1.034*** (0.245)
Labor participation over Pop. 15+	-1.036** (0.433)	0.912 (0.905)	-0.764 (2.259)	1.338** (0.589)	-1.688*** (0.325)	3.400*** (0.833)	3.280** (1.339)	-1.814*** (0.460)
<b>Public Finance</b>								
Gov. Expense over GDP	-0.045 (0.063)	-0.642*** (0.123)	-0.488* (0.249)	0.204*** (0.067)	-0.046 (0.054)	-0.520*** (0.107)	-0.358 (0.220)	0.095 (0.058)
Subsidies transfers over Expense	-0.013 (0.036)	-0.023 (0.062)	-0.011 (0.350)	0.003 (0.049)	0.036 (0.031)	-0.054 (0.056)	-0.158 (0.327)	0.059 (0.045)
<b>Proximity</b>								
Contiguity					0.025 (0.037)	0.314*** (0.098)	0.352* (0.186)	-0.131** (0.057)
Distance (pop_wt, km)					-0.054*** (0.011)	0.057 (0.037)	-0.151** (0.073)	0.016 (0.016)
Com. Lang. Official					0.020 (0.016)	0.094** (0.046)	-0.159* (0.096)	0.023 (0.022)
<b>Other Controls</b>								
Totaldecisions		0.561*** (0.022)	0.581*** (0.042)	0.873*** (0.011)		0.559*** (0.019)	0.515*** (0.037)	0.877*** (0.010)
Totapendingstartyear	0.380*** (0.008)	-0.019 (0.013)	0.064** (0.026)	0.007 (0.007)	0.385*** (0.007)	-0.023* (0.012)	0.112*** (0.025)	0.020*** (0.007)
Appliedduringyear	0.491*** (0.010)	0.149*** (0.016)	-0.020 (0.030)	-0.013 (0.009)	0.560*** (0.008)	0.141*** (0.014)	-0.014 (0.025)	-0.003 (0.008)
Population Density	1.135*** (0.234)	0.246 (0.483)	-2.469* (1.451)	1.564*** (0.321)	1.044*** (0.202)	0.623 (0.408)	-3.395*** (1.157)	0.943*** (0.273)
Constant	13.572*** (3.543)	18.683*** (6.623)	77.583*** (17.829)	-7.777 (5.078)	21.079*** (1.634)	-8.270* (4.227)	9.508 (6.451)	18.681*** (2.585)
Origin FE	yes	yes	yes	yes	yes	yes	yes	yes
Destination FE	No	No	No	No	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	No	No	No	No
Country-pair FE	yes	yes	yes	yes	No	No	No	No
Observations	27,056	15,110	6,338	23,701	27,056	15,110	6,338	23,701
Number of pairid	4,378	2,833	1,552	3,931	4,378	2,833	1,552	3,931
R squared	0.573	0.378	0.307	0.683	0.566	0.373	0.291	0.676

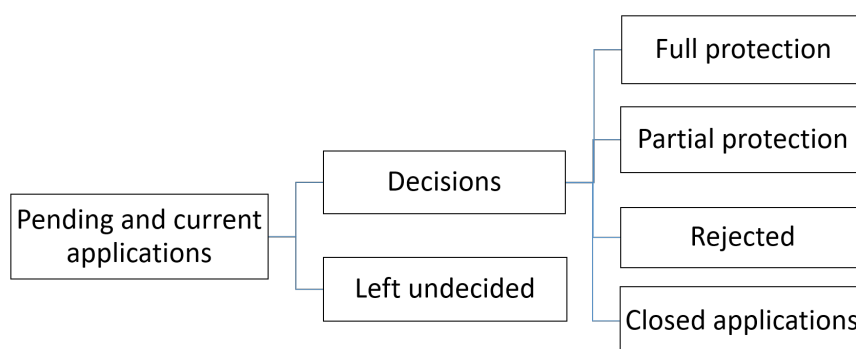
Notes: "Full" protection refers to refugee status according to Geneva Convention for Refugees and "Partial" protection is complementary or subsidiary protection. \*, \*\*, and \*\*\* show significance levels at 10%, 5% and 1% respectively. Standard errors robust against heteroskedasticity and serial correlation, and clustered by country pairs are in parentheses.

## 6.4 THE CASE OF THE APPLICATIONS LEFT UNDECIDED

A log-linear specification is not compatible with the presence of the value zero in a data set. In our case for example, host countries presenting zero decisions for a given year are dropped out of the estimation even if these observations may represent useful information. In effect, if zero decision in a given

host country may simply denote zero asylum application directed towards this country, it can also be the result of delayed asylum application processing due to complex asylum claims or deliberate asylum policies. Figure (4) illustrates the specific case of zero decision due to applications left undecided. It is therefore a matter of judgment how zero-decision observations should be treated. Because their implications differ, it is useful to separate empirically the two types of zero decision. To achieve this, we define a dummy variable equal to one for applications left undecided and we use it as a dependent variable in regressions including the set of previous explanatory variables used. If the way those explanatory variables influence the total number of decisions is a robust finding, one would therefore expect them to act on the applications left undecided in the opposite way.

Figure 4: Refugee status determination



Results reported by table (6) remarkably confirm the relationship previously found between the set of explanatory variables and the total number of applications processed (total decisions). In effect, previous results show that both election years and polarization are significantly correlated with the total number of decisions at the 1% level – columns (1) and (5), table (2). The former enters with a positive coefficient while the latter has a negative coefficient. Interestingly, using the non-decisions dummy as a dependent variable, election years and polarization are linked to this variable in the opposite way compared with the total number of decisions as the dependent variable. Note that the results are not sensitive to the multiway clustering specifications – columns (3) and (4). Table (6) also shows that GDP and fiscal crises are positively associated with the non-decisions dummy. This is also in line with our findings that those variables are negatively associated with the number of decisions made. If we previously showed that the ratio of employment to the working-age population and the labor force participation over the working-age population are negatively and significantly associated with the number of asylum applications

processed, the opposite is true with the non-decisions dummy used as the dependent variable. Table (6) shows that the non-decision dummy is positively associated with total government expenditure over GDP and negatively correlated with subsidy transfers over expenditure. This is also in line with our previous results showing the opposite relationship, insignificant though, between these two measures of public spending and the total decisions made on asylum applications. Contiguity and common official language have no apparent link with applications left undecided while distance matters. Finally, variables composing the controls block show significant coefficients that match previous findings.



Table 6: DETERMINANTS OF ASYLUM APPLICATION PROCESSING

	(1)	(2)	(3)	(4)
	Left Undecided		Multiway clustering Left Undecided	
<b>POLITIC</b>				
Election	-0.007*** (0.003)	-0.004 (0.003)	-0.007*** (0.001)	-0.003*** (0.001)
Polarization	0.004** (0.002)	0.004** (0.002)	0.004*** (0.000)	0.005*** (0.000)
<b>MACROECONOMIC</b>				
GDP (constant \$US)	0.054 (0.036)	0.050 (0.037)	0.045*** (0.004)	0.038*** (0.004)
Fiscal crises	0.006 (0.008)	0.008 (0.008)	0.006*** (0.002)	0.009*** (0.001)
<b>LABOR MARKET</b>				
Emploi over Pop. 15+	0.197** (0.079)	0.190** (0.078)	0.233*** (0.011)	0.218*** (0.008)
Labor participation over Pop. 15+	0.203* (0.110)	0.187* (0.110)	0.109*** (0.019)	0.116*** (0.016)
<b>PUBLIC SPENDING</b>				
Gov. Expense over GDP	0.046*** (0.015)	0.027* (0.015)	0.056*** (0.003)	0.028*** (0.002)
Subsidies transfers over Expense	-0.021** (0.010)	-0.012 (0.011)	-0.025*** (0.001)	-0.016*** (0.001)
<b>PROXIMITY</b>				
Contiguity	0.004 (0.015)		0.010*** (0.001)	
Distance (pop_wt, km)	0.011** (0.005)		0.005*** (0.000)	
Com. Lang. Official	-0.003 (0.008)		-0.008*** (0.001)	
<b>CONTROLS</b>				
Totapendingstartyear	-0.009*** (0.001)	-0.008*** (0.001)	-0.008*** (0.000)	-0.009*** (0.000)
Appliedduringyear	-0.016*** (0.002)	-0.013*** (0.002)	-0.016*** (0.000)	-0.012*** (0.000)
Population Density	-0.083 (0.069)	-0.085 (0.073)	-0.101*** (0.010)	-0.087*** (0.013)
Constant	-2.869*** (0.864)	-2.424** (0.977)	-2.264*** (0.127)	-2.070*** (0.129)
Origin-Year FE	yes	yes	yes	yes
Destination FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
Country-pair FE	No	yes	No	yes
Observations	28,659	29,973	28,659	29,973
Number of pairid		4,576		4,804
R squared	0.123	0.133	0.148	0.396

Notes: "Full" protection refers to refugee status according to Geneva Convention for Refugees and "Partial" protection is complementary or subsidiary protection. \*, \*\*, and \*\*\* show significance levels at 10%, 5% and 1% respectively. Standard errors robust against heteroskedasticity and serial correlation, and clustered by country pairs are in parentheses.

## 7 CONCLUSION

We explored the possible reasons for the heterogeneity in asylum approval policies across host countries using the UNHCR bilateral data on asylum applications and decisions between 2000 and 2017. Looking at OECD countries, we find an increase in the number of applications processed (total decisions) during election years together with an increase in the number of asylum claims rejected. Therefore, the increase in efficiency comes with a cost in terms of rejections. It is also found that political polarization in host countries leads to fewer applications processed, decreases the number of applications rejected, and increases the complementary forms of protection granted to asylum seekers. However, there is no evidence that election years and political polarization affect the approval policies in low and middle-income countries. We also show the importance of geographical and cultural proximity in asylum approval policies whereas economic factors and government expenditures have tenuous effect.

Based on these results and from the perspective of asylum seekers, heterogeneity in asylum approval applications is problematic. In effect, ensuring fair protection processes and creating a favorable protection environment for refugees are important goals pursued by the UNHCR and other international institutions with interest in refugee protection. Similarly, attention needs to be paid to subsidiary measures that many host countries use during periods of political polarization. As subsidiary restrictions often limit refugees' rights as compared to the Geneva Convention, it is crucial to encourage countries to comply with international standards.

Most importantly, this study brings to the attention of asylum-seekers and institutions supporting refugees the fact that political and macroeconomic factors matter and may lead to delayed responses or fewer admittances. It also informs strategies for better orientation of asylum applications from different countries of origin. This is important for: i) asylum seekers to decide where to file asylum applications; ii) policy makers and the public in host countries to be cognizant of how asylum application outcomes can be affected by political and macroeconomic factors and iii) international organizations assisting refugees to devise policies and programs that can improve the success rate of asylum applications.

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## APPENDIXES

Table 7: DETERMINANTS OF REFUGEE STATUS DETERMINATION IN NON-OECD HOST COUNTRIES

VARIABLES	(1) Totaldecisions	(2) Full	(3) Partial	(4) Rejected	(5) Totaldecisions	(6) Full	(7) Partial	(8) Rejected
<b>POLITIC</b>								
Election	0.019 (0.037)	-0.050 (0.060)	0.823 (0.654)	-0.054 (0.042)	-0.008 (0.040)	-0.048 (0.058)	-1.707** (0.695)	-0.089** (0.045)
Polarization	0.119** (0.050)	-0.089 (0.078)	0.607 (0.590)	-0.040 (0.056)	0.089 (0.056)	-0.061 (0.072)	0.009 (0.314)	-0.013 (0.063)
<b>MACROECONOMIC</b>								
GDP (constant \$US)	-2.034*** (0.343)	1.374*** (0.436)	3.192 (7.375)	-0.338 (0.383)	-2.210*** (0.397)	1.297*** (0.468)	-1.408 (3.671)	-0.371 (0.428)
Fiscal crises	0.014 (0.055)	0.029 (0.073)	0.230 (0.698)	0.011 (0.061)	0.027 (0.060)	0.040 (0.073)	-1.813** (0.845)	0.016 (0.062)
<b>LABOR MARKET</b>								
Emploi over Pop. 15+	0.925 (1.025)	-0.848 (1.267)	12.405 (21.920)	-1.710 (1.141)	0.640 (1.108)	0.235 (1.448)	-35.671* (18.640)	-2.718** (1.234)
Labor participation over Pop. 15+	-1.222 (1.180)	-0.770 (1.592)	-1.255 (22.149)	3.277** (1.444)	-1.007 (1.317)	-2.678 (1.828)	0.966 (13.098)	5.082*** (1.533)
<b>PUBLIC SPENDING</b>								
Gov. Expense over GDP	-0.244* (0.146)	0.139 (0.191)	6.016 (5.596)	0.294** (0.148)	-0.177 (0.154)	0.278 (0.219)	-6.264** (3.143)	0.248 (0.167)
Subsidies transfers over Expense	0.043 (0.046)	0.000 (0.076)	-1.235 (4.271)	-0.056 (0.063)	0.011 (0.051)	-0.060 (0.087)	-2.071 (2.346)	-0.072 (0.070)
<b>PROXIMITY</b>								
Contiguity	0.015 (0.083)	0.099 (0.135)	0.079 (0.689)	-0.104 (0.097)				
Distance (pop_wt, km)	-0.069** (0.032)	-0.158* (0.085)	-0.250 (0.629)	0.084** (0.041)				
Com. Lang. Official	0.032 (0.049)	0.037 (0.116)	-0.874 (1.192)	0.006 (0.065)				
<b>CONTROLS</b>								
Totaldecisions		0.613*** (0.040)	0.600 (0.524)	0.790*** (0.024)		0.627*** (0.041)	0.357 (0.383)	0.795*** (0.027)
Totapendingstartyear	0.387*** (0.019)	-0.041 (0.029)	0.300 (0.301)	-0.040** (0.019)	0.385*** (0.020)	-0.046 (0.032)	0.372* (0.198)	-0.050** (0.020)
Appliedduringyear	0.493*** (0.020)	0.170*** (0.033)	0.023 (0.304)	0.078*** (0.019)	0.360*** (0.024)	0.129*** (0.043)	0.605* (0.326)	0.047** (0.023)
Population Density	0.105 (0.370)	1.585** (0.645)	-14.631 (13.497)	-0.351 (0.504)	0.068 (0.453)	1.243* (0.735)	-3.767 (6.513)	-0.279 (0.588)
Constant	50.258*** (8.485)		-95.957 (172.535)	-0.018 (9.132)	58.859*** (10.440)	-30.610** (13.083)	210.062* (122.480)	-0.877 (10.852)
Origin-Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Destination FE	yes	yes	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Country-pair FE	No	No	No	No	yes	yes	yes	yes
Observations	5,460	2,920	382	3,951	5,687	3,076	412	4,075
Number of pairid	1,335	818	194	1,071	1,394	868	209	1,114
R squared	0.572	0.643	0.932	0.740	0.603	0.686	0.975	0.761

Notes: "Full" protection refers to refugee status according to Geneva Convention for Refugees and "Partial" protection is complementary or subsidiary protection. \*, \*\*, and \*\*\* show significance levels at 10%, 5% and 1% respectively. Standard errors robust against heteroskedasticity and serial correlation, and clustered by country pairs are in parentheses.

Table 8: BIVARIATE CORRELATION MATRIX

	Totaldecisions	Election	Polarization	GDP (constant \$US)	Fiscal crises	Emploi over Pop. 15+	Labor participation over Pop. 15+	Gov. Expense over GDP	Subsidies transfers over Expense	Contiguity	Distance (pop_wt, km)	Com. Lang. Official	Totalpendingsryear	Appliedduryear	Population Density
Totaldecisions	1														
Election	0	1													
Polarization	0	0,1	1												
GDP (constant \$US)	0,03	0,03	0,02	1											
Fiscal crises	-0,02	-0,04	-0,18	-0,16	1										
Emploi over Pop. 15+	-0,01	0,04	0,12	0,08	-0,06	1									
Labor participation over Pop. 15+	0,01	0,08	0,39	0,14	-0,2	0,8	1								
Gov. Expense over GDP	0,01	0,01	0,29	-0,16	-0,07	-0,36	-0,06	1							
Subsidies transfers over Expense	0,03	0,04	0,31	0,23	-0,28	-0,04	0,29	0,08	1						
Contiguity	0,05	-0,02	-0,12	-0,06	0,1	0,04	-0,07	-0,1	-0,09	1					
Distance (pop_wt, km)	-0,03	0,04	0,15	0,24	-0,12	0,15	0,19	-0,14	0,17	-0,29	1				
Com. Lang. Official	0	-0,03	-0,17	0,01	0,09	0,05	-0,11	-0,18	-0,14	0,16	-0,11	1			
Totalpendingsryear	0,58	0	-0,01	0,03	-0,01	-0,01	-0,01	0	0,02	0,05	-0,04	0,01	1		
Appliedduryear	0,54	0	0	0,04	-0,02	-0,01	0	0,01	0,04	0,06	-0,04	0,01	0,16	1	
Population Density	0	-0,01	-0,01	-0,04	-0,09	-0,02	-0,02	0,14	0	-0,04	-0,06	-0,01	0	0	1

Table 9: CORRESPONDENCE BETWEEN COUNTRY NAMES AND COUNTRY CODES USED IN FIGURE 4 AND 6

Albania	ALB	Germany	DEU	Nigeria	NGA
Algeria	DZA	Ghana	GHA	Norway	NOR
Argentina	ARG	Greece	GRC	Pakistan	PAK
Armenia	ARM	Hungary	HUN	Panama	PAN
Australia	AUS	Iceland	ISL	Paraguay	PRY
Austria	AUT	India	IND	Philippines	PHL
Azerbaijan	AZE	Indonesia	IDN	Poland	POL
Bangladesh	BGD	Iraq	IRQ	Portugal	PRT
Belarus	BLR	Ireland	IRL	Romania	ROU
		Israel	ISR	Russian Federation	RUS
Belgium	BEL	Italy	ITA	Saudi Arabia	SAU
Benin	BEN	Jordan	JOR	Serbia	SRB
Bosnia and Herzegovina	BIH	Kazakhstan	KAZ	Slovak Republic	SVK
Botswana	BWA	Kenya	KEN	Slovenia	SVN
Brazil	BRA	Korea, Rep.	KOR	Somalia	SOM
Bulgaria	BGR	Kuwait	KWT	South Sudan	SSD
Cameroon	CMR	Kyrgyz Republic	KGZ	Spain	ESP
Canada	CAN	Latvia	LVA	Sri Lanka	LKA
Central African Republic	CAF	Lebanon	LBN	Sudan	SDN
Chad	TCD			Eswatini	SWZ
Chile	CHL	Libya	LBY	Sweden	SWE
China	CHN	Liechtenstein	LIE	Switzerland	CHE
Congo, Rep.	COG	Lithuania	LTU	Syrian Arab Republic	SYR
Costa Rica	CRI	Luxembourg	LUX	Tajikistan	TJK
Croatia	HRV	Macedonia, FYR	MKD	Thailand	THA
Cuba	CUB	Malawi	MWI	Trinidad and Tobago	TTO
Cyprus	CYP	Malaysia	MYS	Turkey	TUR
Czech Republic	CZE	Malta	MLT	Uganda	UGA
Denmark	DNK	Mauritania	MRT	Ukraine	UKR
Djibouti	DJI	Mexico	MEX	United Arab Emirates	ARE
Dominican Republic	DOM	Moldova	MDA	United Kingdom	GBR
Ecuador	ECU	Montenegro	MNE	United States	USA
Egypt, Arab Rep.	EGY	Morocco	MAR	Yemen, Rep.	YEM
Ethiopia	ETH	Mozambique	MOZ	Zambia	ZMB
Finland	FIN	Netherlands	NLD	Zimbabwe	ZWE
France	FRA	New Zealand	NZL		
Georgia	GEO	Niger	NER		

Figure 5: Geographical orientation of refugees by country of origin, 2017

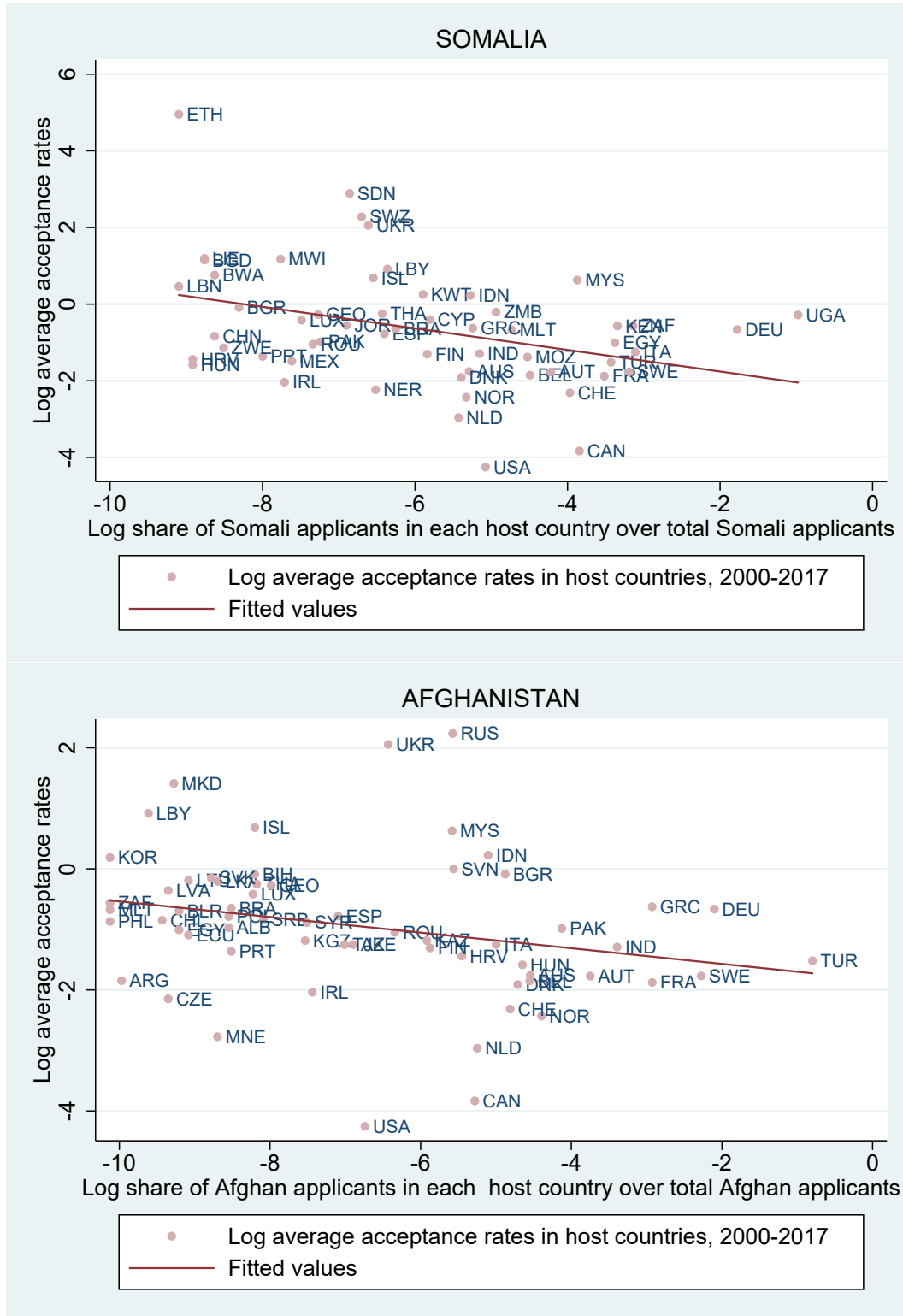
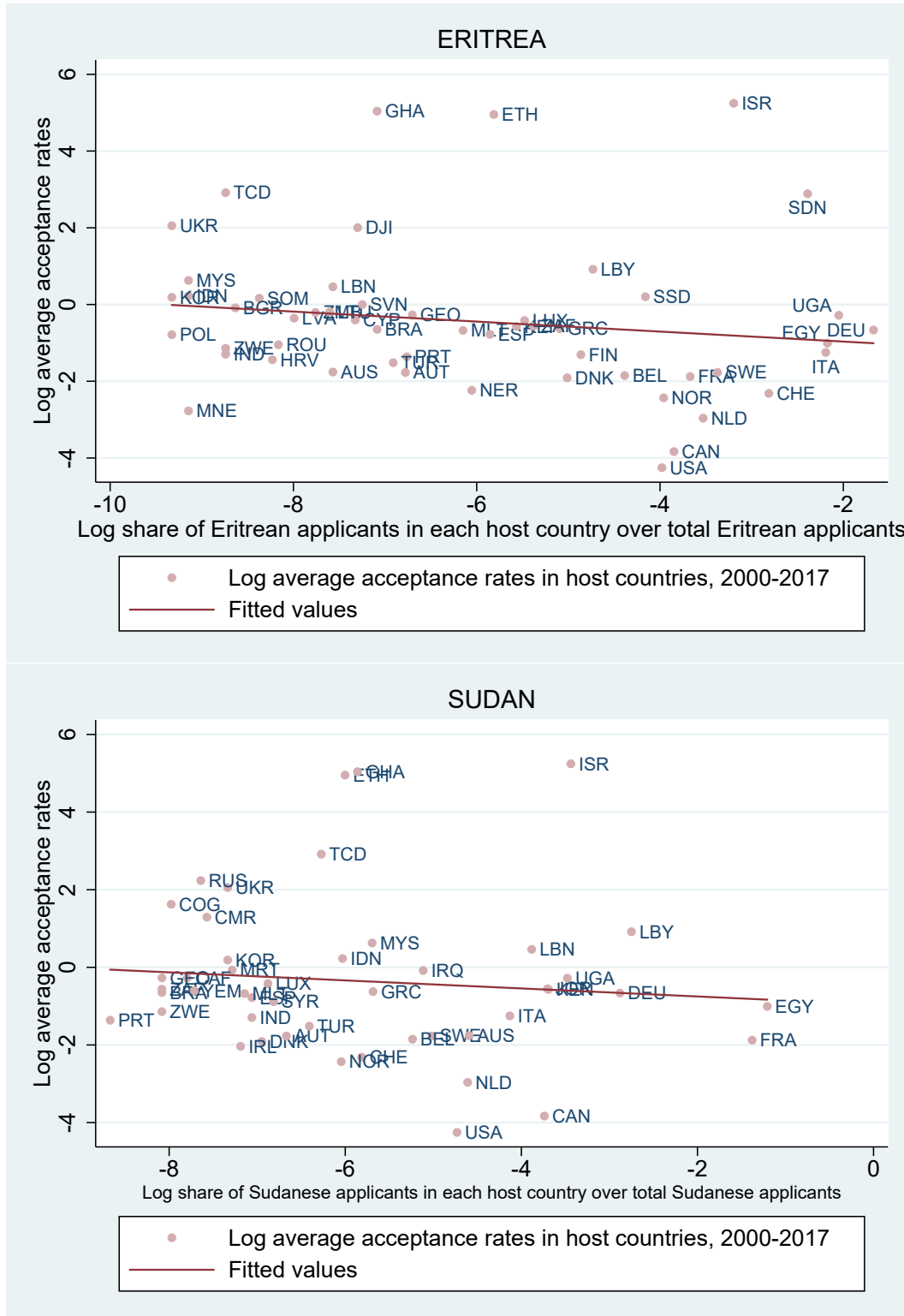




Figure 5: Geographical orientation of refugees by country of origin, 2017(contd)



Source: Author's calculation based on UNHCR data