Refugees, not economic migrants -

Why do asylum seekers register in Hungary?¹

András TÉTÉNYI

Institute of World Economy, Corvinus University Budapest, Hungary

Fővám square 8, H-1093, Budapest, Hungary

Corresponding author, email: andras.tetenyi@uni-corvinus.hu

Telephone: +36-70-258-4642

Tamás BARCZIKAY

National University of Public Service, Budapest, Hungary

Balázs SZENT-IVÁNYI

Aston Centre for Europe, Aston University, Birmingham, UK
Institute of World Economy, Corvinus University Budapest, Hungary

ABSTRACT

The paper analyses why asylum seekers choose Hungary as an entry point to the European Union. Among the Central and Eastern European countries Hungary has been by far the most popular choice for asylum seekers between 2002 and 2016, yet surprisingly, it has been neglected by the literature. Using a panel dataset and fixed effects regressions, the paper finds that beyond being 'conveniently' located on the Balkans migration route, variables related to Hungary's immigration policy are the most significant determinants of asylum seeker choices. The paper finds no evidence to support recent claims by the Hungarian government that arrivals to the country are actually economic migrants and not asylum seekers; quite the contrary, the results indicate that on average asylum seekers entering Hungary are fleeing violent conflict in their countries of origin.

Keywords: asylum seekers, refugees, Hungary

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1. INTRODUCTION

Recent numbers of asylum applications in the European Union (EU) member states have surpassed all previous levels, with members registering a record of 1,322,845 applications in 2015 (Eurostat 2018). While in the early 2000s flows of asylum seekers were relatively stable, a sizeable increase is observable between 2010 and 2016. This increase has not only affected the traditional Western European destination countries, but also the Central and Eastern European (CEE) EU members, most notably Hungary, which accounted for 82.7% of all applications filed in CEE countries in 2015 (Eurostat 2018).

The CEE states are relative newcomers to the field of refugee protection, as many of them had no tradition in it before 1989. The creation of asylum policies in these countries and the adoption of the relevant *acquis communautaire* were preconditions towards EU accession. The CEE countries needed to join the Common European Asylum System (CEAS), and implement a number of directives, including the Reception Conditions Directive (2003), which introduced minimum standards for housing and healthcare in member states; the Qualification Directive (2004), which set the criteria qualifying asylum applicants for protection; and the Asylum Procedures Directive (2005), which regulated the minimum standards for procedures (Toshkov and de Haan 2013). As the CEE countries implemented all these directives, one might expect asylum seeker flows to be distributed relatively evenly among them, as they all have the same minimum standards. However, out of the eleven CEE member states, Hungary, Poland and Bulgaria accounted for 79.6% of registered asylum seekers between 2002 and 2016. Furthermore, out of 624,250 asylum registrations in the region, 45.2% were lodged in Hungary.

Given this context, the paper has two goals. First, it aims to explain why asylum seekers have disproportionately chosen Hungary as their entry point to the EU, by examining the pull and push factors which influence their decisions. While it is possible to argue that the preference for Hungary can simply be explained by the fact that it was conveniently located on the Balkans migration route (at least until the building of a fence on the Hungarian-Serbian border in 2015; see Beznec et al. 2016 and Arsenijevic et al. 2017), there is potential for further factors to exert influence. Variables which could have made Hungary more attractive to asylum seekers, beyond its geographic position, include its decision-making procedures on refugees and the relative laxness of its border control between 2002 and 2015. It is unclear however what influence these factors have actually had on the decisions made by asylum seekers.

Second, the paper tests whether people registering asylum applications in Hungary are really forced migrants. After 2015, the Hungarian government, led by the populist-conservative Fidesz party, has claimed that the asylum seekers arriving to the country are actually "illegal economic migrants" (The Guardian 2015). The government has used this as a justification to implement tighter border controls, including the erection of the fence along the Serbian border, and harsher treatment of arriving asylum seekers. By analyzing the factors which drive asylum seekers in their selection of Hungary as the country where they file their applications, the paper tests this claim of the government.

The paper builds on the quantitative literature on asylum seeker destination choices, which argues that asylum seekers make rational decisions (Moore and Shellman 2007; Neumayer 2004; 2005). Using regression analysis, we find that a key pull factor in the case of Hungary was the recognition of asylum seekers. The impact of the restrictiveness of the Hungarian border was inconclusive. Aid, trade and income differences between Hungary and the countries of origin had no significant impact on asylum applications. The results of the push factors are consistent with the literature: the intensity of violent conflict in the country of origin increases the number of asylum applications, whereas the level of political and civil freedoms are only weakly significant determinants. These findings show that the asylum seekers arriving to Hungary are more likely to have been refugees, as opposed to the government's rhetoric which claimed that they were economic migrants.

These findings enrich the literature in two ways. First, there have been surprisingly few studies beyond Rotte and Vogler (1999) which focus on individual countries as countries of destination or transit (Lukic 2016), despite the fact that Moore and Shellman (2007) pointed out the value of such research. According to Keogh (2013), only 30% of the variation in asylum applications can be explained by the destination country's GDP, recognition rate and refugee stocks, whereas 70% is down to other country-specific factors, which require further investigation. Second, the literature has given little consideration to CEE countries as countries of destination or transit.

The following section provides key details on the EU's and Hungary's asylum system, which is followed by a review of the quantitative literature analysing asylum seeker destination choices. Subsequently, the paper discusses the methodology and presents the findings, while the final section offers some concluding remarks.

2. THE EU ASYLUM SYSTEM AND THE CEE STATES

A common asylum system in the EU emerged in 1990 with the Dublin Convention. The goal was to establish a framework to determine which EU country is responsible for processing which asylum application, and to ensure that each application is processed by only one state. Asylum seekers were also required to lodge their application in the first EU state they entered. As argued by Guild (2006), the Dublin Convention exempted asylum seekers from free movement within the EU.

The Amsterdam Treaty of 1997 absorbed the provisions of the Dublin Convention into EU law. The Tampere meeting of the European Council in 1999 emphasized the need for the establishment of a Common European Asylum System, arising from the inadequate response to the Kosovo refugee crisis. Two key principles were adopted in the Tampere Conclusions (Guild 2006: 642-643): the harmonization of asylum law at a common minimal level and the principle of mutual recognition. This meant that all EU member states had to provide the same common minimal standards in asylum qualification, reception and procedures and therefore it should not matter where asylum seekers submitted their asylum applications. As pointed out by

Toshkov and de Haan (2013), this might turn out otherwise, as member states could be inclined to tighten admission standards to push asylum seekers to other member states. However, they found no evidence of this race to the bottom, and neither has more recent work (Zaun 2017).

In regard to the CEE member states, ratification of the 1951 Geneva Convention was made a precondition for EU accession. Many of these states had little traditions in refugee protection, and while the repressive aspects of the EU acquis were quickly implemented, the implementation of the human rights aspects did not follow suit automatically (Miciukiewicz 2011: 184-187). Hungary had some history of accepting refugees during World War II, but like many other Eastern bloc countries, was mostly a refugee sending country, especially in the aftermath of the 1956 revolution. Hungarian asylum policy was created due to the increasing number of asylum seekers arriving from Romania escaping the Ceauşescu regime in 1989 (Wetzel 2009). Initially, Hungary only provided asylum protection to Europeans who became refugees due to historical events before 1951. This was gradually changed from 1997 onwards with the acceptance of Hungary's first law on asylum and the adoption of the EU acquis, to include non-European citizens, provide better reception conditions, and improve judicial review. Non-governmental organisations were also given a larger role in assisting asylum seekers and refugees. Hungary adopted the repressive elements of the EU acquis as well, such as the safe third country principle: this allowed Hungary to send asylum seekers back to countries deemed safe which they had moved through on their way to the country. This gave Hungary the legal grounds to claim that the applications of asylum seekers who had passed through, for example, Ukraine or Serbia, were unfounded (Nagy 2012: 236).

As shown in Table 1, Europe experienced an unexpected influx of asylum seekers in 2015, mainly through the Balkan corridor (Arsenijevic et al. 2017; ECRE 2015). The corridor started in Turkey, passed through Greece into Macedonia and then onto Serbia and Hungary. Following the closure of the Hungarian border in 2015, the route changed to incorporate Croatia and Slovenia as well (Beznec 2016). Asylum seekers arriving in 2015 to Hungary showed a variety of countries of origin: those arriving in the first two months were mainly from Kosovo, but starting from the spring the numbers from Syria, Afghanistan, Iraq and Pakistan increased dramatically (Juhász et al. 2015). Vulnerable groups composed almost three quarters of asylum seekers arriving to the Hungarian border, according to Arsenijevic et al. (2017).

Borrowing Lavenex's (2001) terminology, Hungarian asylum policy can be characterized as shifting from a realist frame, focusing on internal security in the 1990s, to a more liberal frame, focusing on human rights, during and after EU accession in the 2000s. Due to the increasing number of asylum applications since 2014, a shift back to the realist frame has emerged. Almost half of the applications in the CEE countries between 2002 and 2016 were submitted in Hungary (see Table 1). These asylum seekers have made conscious choices in selecting Hungary as their entry point to the EU, at least when accepting the logic of the rationality of asylum seeker behaviour (see Keogh 2013; Barthel and Neumayer 2015).

<TABLE 1>

3. WHERE DO ASYLUM SEEKERS GO?

The destination choices of asylum seekers have been relatively well researched in the last twenty years. A significant stream in this literature uses quantitative methods (Barthel and Neumayer 2015; Davenport et al. 2003; Hatton 2016). This section reviews this literature, focusing on the variables which influence asylum seeker destination choices.

When categorizing the variables which determine the choices of asylum seekers, the literature has generally followed Lee's (1966) classic differentiation between push factors (which provide asylum seekers with incentives to leave their country of origin) and pull factors (which draw asylum seekers to a particular destination country). Most of the early literature focused on pull factors. Böcker and Havinga (1998) analysed asylum seeker movements between 1985 and 1994 to the EU from 44 countries of origin, arguing that asylum seekers favoured the richer and larger EU countries, and asylum seekers from former colonies were more likely to move to the former colonial power. Economic and cultural pull factors were thus seen as dominant. Thielemann (2003) also focused on pull factors, and included 20 OECD destination countries between 1985 and 1999. His results also indicated that economic pull factors mattered: high unemployment acted as a deterrent towards asylum applications, as did low asylum recognition rates and the prohibition of work for recognized refugees. He also found that historical relationships and diaspora networks tended to increase asylum applications, as did foreign aid from the destination country to the country of origin. The distance between the two countries and economic growth in the destination country however had no significant impact.

Economic, political and cultural pull factors were further investigated by Neumayer (2004), who included Western European destination countries between 1980 and 1999. Some of his findings were consistent with Böcker and Havinga (1998) and Thieleman (2003): GDP per capita, common language, colonial history, diaspora networks and the recognition rate were all found to be significant pull factors. However, contradicting previous research, he did not find evidence for the impact of unemployment or social payments, while he also argued that distance and GDP growth were significant determinants. Neumayer's (2004) findings were supported by Keogh (2013), who found GDP per capita, the recognition rate and historical networks (the net stock of refugees already in the country of destination) as the most important pull factors to the EU. However, he emphasized that these three variables explained less than 30 percent of the overall variation in asylum applications, and the rest was down to country specific effects (Keogh 2013: 396). Barthel and Neumayer (2015) analysed 19 countries of destination (including Hungary) and 153 source countries between 1998 and 2007. They also found that the stock of refugees already residing in the country increased the flow of asylum seekers, whereas foreign aid from the destination country to the origin country had no impact.

Davenport et al.'s work (2003) was one of the first comprehensive attempts to include push factors as well, using 129 countries of destination and origin between the years of 1964 and 1989, including non-EU/OECD destination countries. In terms of pull factors, historical networks were found significant. The size and income of the destination country were not significant determinants, contradicting previous findings. Among the push factors, civil war

and genocide within the country of origin were the most significant factors, while recent democratization coupled with political unrest leads to forced migration. Neumayer (2005) also used a model combining push and pull factors, yet his results were quite different. He found evidence that economic push factors, such as growth and incomes in the country of origin were significant determinants of asylum applications. In terms of political push factors, discrimination of minorities, human rights violations, civil and ethnic wars all increased asylum applications, while the impact of autocracy was unclear: in some cases democracy leads to more asylum seekers as people freer to leave. Pull factors such as aid, trade and colonial ties were found to be insignificant.

One of the most comprehensive analyses was conducted by Moore and Shellman (2007), who assessed push and pull factors between 1955 and 2001 for all countries for which data was available. The results showed that refugees preferred to relocate to countries with higher average wages if these were neighbouring countries, however they were less likely to seek refuge in countries with higher wages if these were located farther away. Common language, colonial ties and diaspora networks all exerted a positive pull on refugee flows, whereas democratic institutions in the host country failed to attract greater numbers. Political push factors which were significant included genocide, civil war and border war. Hatton (2016) also included both pull and push factors in his analysis of asylum flows to 19 OECD countries between 1997 and 2012. His results showed that political terror and the lack of civil liberties were significant push factors, whereas the lack of political rights and civil war turned out to be insignificant. In terms of pull factors, GDP in the destination country was insignificant, while higher unemployment decreased asylum applications, both of which contradicting previous research. Historical networks and diasporas on the other hand increased applications, which was consistent with almost all papers.

Interestingly, almost all contributions in the literature looked at asylum flows to a group of countries. Despite the fact that both Keogh (2013) and Moore and Shellman (2007) pointed out the value of individual country destination analysis, there has been little research in this regard. Rotte and Vogler (1999) analysed migration and asylum seeker flows to Germany between 1981 and 1995, and concluded that an increase in the income differential between Germany and the origin country led to an increase in asylum seekers, and so did an increase in German aid and trade. The increase in political terror in the sending country also increased asylum seeker numbers, while political rights and civil liberties had no impact. While there have been some qualitative inquiries on the topic, such as Lukic's (2016) paper on asylum seekers in Serbia, we are not aware of any other quantitative papers examining asylum flows to a single destination country.

The review of the literature shows that there are many contradictions among the findings, making it difficult to draw conclusions on the determinants of where asylum seekers go. There are only a few variables on which there seems to be consensus. In terms of pull factors, historical networks in the forms of diasporas have been found to be significant determinants by most studies, which is understandable as people base their decisions on inputs from others who had already made such a trip. There is also a consensus surrounding the impact of the strictness of

asylum policy within the destination country (such as the recognition rate, reception conditions etc.). In terms of push factors, the level of violence in the country of origin is the only determinant on which there seems to be agreement.

Most of these discrepancies between the findings of the literature can be explained by key methodological differences. First, examining pull factors with aggregate numbers of asylum applications from all origin countries will produce different results than including both pull and push factors and using destination and origin country dyads. The latter approach, as it includes a wider range of variables, is more likely to provide unbiased results. Second, the choice of countries and years covered by the analysis also matters. Much of the early literature focused on EU or OECD member states. While this approach is fine if one aims to understand why asylum seekers go specifically to these countries, it also introduces bias, given that the majority of those displaced by conflict do not leave their region (Moore and Shellman 2007: 813). There are reasons to expect that the years covered by the studies also matters: more recent asylum seekers are better informed than those in the past, and thus better placed to make informed decisions (Frouws et al. 2016). Third, regression estimation methods have also differed among the reviewed papers: ordinary least squares (OLS) and fixed effects (FE) have been the most common estimators, but other methods, such as random effects (RE) and the generalized estimating equation model has also been used (Neumayer 2005).

Building on the insights from the literature, the following section presents the methods and data used in the paper.

4. DATA AND METHODS

The dependent variable in our analysis is the raw number of asylum seeker registrations (Neumayer 2005: 396; Moore and Shellman 2007: 820) from a country of origin to Hungary in a given year (REGISTRATIONS). Asylum seeker flows are conceptualized as the aggregate observable flow of individuals (Neumayer 2005; Moore and Shellman 2007). Data on the number of asylum seekers registered by country of origin in Hungary is available from Eurostat between 2002 and 2016. Similarly to Hatton (2016), only those countries of origin have been included from which Hungary has received at least 300 asylum registrations in total over the 15 year period. This criteria was fulfilled by 24 countries, and asylum seekers from these countries account for 91.4% of registered asylum claims. Given how the dependent variable is entered into the regression in logarithmic form, this approach minimizes the number of data points with values of zero, while ensuring that there is still sufficient variation in the dependent variable.

The independent variables were grouped into the two larger categories identified in the literature review: push factors, which are specific to the country of origin and push asylum seekers abroad; and pull factors, which pull asylum seekers to Hungary specifically.

Political push factors include a lack of political freedoms and authoritarianism, a lack of civil liberties, and even political terrorism by the state, including the persecution of the opposition,

or certain ethnic or religious minorities. The lack of security, or the prevalence of violent conflict are also among the most generally cited political push factors. We use several variables to capture the effects of these political push factors. First, we use the Political Rights (POLRIGHT) and Civil Liberties (CIVLIB) indexes from Freedom House (Neumayer 2005: 397, Rotte and Vogler 1999: 32). Political rights and civil liberties ratings are measured from 1 to 7, where 1 represents the greatest degree of freedom and 7 the lowest. Second, we use Freedom House's overall rating of how free a country is (Moore and Shellman 2007: 821). The freedom rating is the mean of a country's political rights and civil liberties ratings. Between the scores of 1 to 2.5 the country is categorised as free; between 3 to 5 as partly free and 5.5 to 7 as not free. We operationalize the freedom ratings as two dummy variables, equal to one if a country is partly free and zero otherwise (PARTFREE); and equal to one if the country is not free and zero otherwise (NFREE). Third, we use the Purdue Political Terror Scale to account for the lack of security (PTS; Moore and Shellman 2007: 821). The PTS uses a ranking system from 1 to 5, where countries ranked at 1 enjoy security and peace, whereas in countries ranked at 5, terror has expanded to the entire population. Fourth, the Freedom House and PTS indices both use ordinal scales, therefore slight changes, for instance, in terrorist activity may not be expressed in a change in the score. Therefore, we also use a variable from the Uppsala Conflict Data Program (UCDP; Hatton 2016: 442) to assess the intensity of violent conflict: the number of deaths (best estimate) due to violent conflict in a given country of origin in a given year per thousand population. If either of these push factors turn out to be positive and significant determinants of asylum registrations, then migrants submitting their applications in Hungary are more likely to be forced refugees, as opposed to the claims of the government.

The pull variables can be allocated into three larger groups: personal links; economic aspects; and qualification and deterrence aspects. Personal links focus on the potential ties asylum seekers may already possess in the destination country, as well as the knowledge they have about it. Having relatives who can provide information and support already present in the destination country makes migration easier. Potential asylum seekers can also get information about a destination country from a range of other sources: for example strong economic ties between their home country and Hungary can generate some general knowledge about Hungary. Geographic proximity between the country of origin and Hungary is also likely to make the spread of information easier. To measure personal links and contacts between the origin country and Hungary, we use five variables: bilateral trade, foreign aid, migrant networks, population and distance (Neumayer 2005: 397; Berthélemy et al. 2009: 1593). For bilateral trade (TRADE), the sum of exports and imports (in constant 2015 US dollars) between the country of origin and Hungary is used, taken from the International Trade Centre (2018). To control for differences in country size, this is divided by the population of the country of origin. Aid is measured by the net amount of Hungarian official development assistance provided to the country of origin, in constant 2015 US dollars (AID). Aid is also relative to the population of the country of origin, and data is from the OECD (2018). Measuring the effect of existing migrant networks is difficult, as reliable data on ethnic diasporas is not available for Hungary. Instead, we proxy the effect of these networks with the variable MIG-NETWORK (Neumayer 2004: 168; 2005: 53; Rotte and Vogler 1999: 32), which is the average of asylum seeker applications from the country of origin in the previous two years, using data from

Eurostat (2018). To control for differences in country size, the population (in thousands) of the country of origin was introduced (POPULATION), using data from the UN (2018). Finally, to measure geographic proximity, the straight-line distance between the capitals of the destination country and the country of origin is included (DISTANCE; Neumayer 2005: 397; Berthélemy 2009: 1593).

Economic pull factors mainly relate to differences in welfare and economic opportunities between the country of origin and Hungary. Three variables are included to measure these: the differences in income between Hungary and the country of origin, unemployment in Hungary and Hungarian social welfare expenditure. The idea behind using the income differential as a pull indicator is that the higher the income difference between the country of origin and destination, the more attractive it is for asylum seekers, especially if they are not only seeking safe haven, but are thinking about long term economic prospects. We use Hungary's GDP per capita divided by the GDP per capita of the origin county (INCOMEDIFF; Rotter and Vogler 1999:32). Data is from the UN (2018). To check whether asylum seekers were motivated in their choice of Hungary by additional economic factors, the unemployment rate (UNEMP; Thielemann 2003: 19; Neumayer 2004: 167) and the annual average social welfare expenditure (WELFEXP; Neumayer 2004: 169) in Hungary were used, both from the Hungarian Central Statistical Office (KSH 2018). The positive significance of these economic variables would lend support to the claims of the Hungarian government regarding the motivations of migrants.

The final group of pull factors, qualifications and deterrence, relate to Hungary's practice in accepting asylum seekers. A liberal asylum system will be a significant pull factor, while strict practices will deter asylum seekers. We use four variables: recognition, the share of right wing parties in Parliament and two variables to proxy the strictness of the Hungarian border. To investigate how the decisions of the Hungarian authorities on whether to grant protection have impacted on asylum seeker flows, a variable measuring approved asylum applications (RECOGNITION) was used (Böcker and Havinga 1998: 250; Keogh 2013: 376). We expect asylum seeker numbers to increase if asylum recognition is high and decrease if rejection is high. Neumayer (2004: 169) argues that there may be a negative relationship between asylum registrations and right-wing political parties in the country of destination, as right-wing parties are usually more hawkish on immigration. The variable POLPARTIES, the ratio of right wing political parties in the Hungarian Parliament, is thus included to control for this. Finally, the tightness of the Hungarian border is proxied using two variables. Asylum seekers do not always enter Hungary using the official border crossings, and in these cases the Hungarian police can initiate criminal proceedings. The variable THS, which is the absolute number of proceedings in a given year for illegal border crossings, is used to proxy whether this deters asylum seekers (data are from the Hungarian police's OZIRIS system, 2018). The variable SMUGGLING, which is the number of human smugglers caught in Hungary also relates to how strictly the Hungarian border is patrolled (OZIRIS 2018). A greater number of apprehended smugglers should deter asylum seekers.

The dependent and independent variables of the paper are summarized in Table 2.

<TABLE 2>

As discussed, the model is estimated using panel data covering the years between 2002 and 2016 and 24 countries of origin, yielding a dataset with a maximum of 360 observations. However, due to the lack of data for some country/years, the actual panel is unbalanced and has 316 observations. Data was unavailable from Freedom House (2018) for Kosovo between 2002 and 2008 and for Palestine between 2002 and 2010. In addition, registrations (Eurostat 2018) data was missing for Mali between 2002 and 2012, Eritrea (2002,) Morocco (2002) and Sri Lanka (2003, 2004, 2006). There was no trade data for Eritrea (2008 and 2009) and Somalia (2005). We do not think that these missing data introduce strong bias into the regression, as the more recent (post-2010) data, which features higher registration numbers, is complete.

Beyond REGISTRATIONS, the variables WELFEXP, INCOMEDIFF and TRADE were also entered in logarithmic form. Time dummies were used to control for the effects of individual years on registration numbers. To tackle possible endogeneity of the independent variables, the variables AID, TRADE, INCOMEDIFF and THS were lagged one year, as these variables may be influenced by asylum registrations.

Estimations were made using pooled OLS, RE and FE methods. We used panel corrected standard errors (clustering the standard errors according to the country of origin), making the estimates heteroscedasticity and autocorrelation robust. A histogram of the residuals showed that they follow close to normal distribution. Pooled OLS suffers from bias when there are omitted variables, which is generally the case in cross-country panel data, as it is impossible to include all factors which have an influence on the dependent variable and are time invariant (such as culture or geography). RE and FE models both attempt to account for these omitted time invariant country-specific effects. The RE model treats country-specific unobserved effects as random disturbance, which are uncorrelated with the independent variables. The FE model on the other hand removes time-invariant unobserved country effects by quasidemeaning the regression equation (Wooldridge 2001). To test which of the three estimators is most suitable, we used the test of overidentifying restrictions (Arellano 1993). The result showed that the FE method was the better estimator when compared to RE (Sargan-Hansen statistic 4416.445; Chi-sq(17); P-value=0.0000). When comparing the RE and the OLS models using the Breusch-Pagan Lagrange (BPL) multiplier test, we failed to reject the null hypothesis, meaning that the RE model provides the better fit (chibar2(01)=91.69; prob>chibar2=0.000). FE is therefore the preferred estimator: the BPL test suggested using the RE model instead of OLS, and the test of overidentifying restrictions favoured the FE model over RE.

5. RESULTS

The descriptive statistics for the variables (Table 3), show that there is good degree of variation in most of the variables, as standard deviations are generally high. This variation comes from both between-country differences, as well as trends over time. Figure 1 disaggregates variation for six key variables in case of some of the most important sending countries, Afghanistan, Bangladesh, Iraq, Kosovo, Nigeria and Syria. Panels A and E, for REGISTRATIONS and

TRADE respectively, show significant differences between these six countries, but also important trends over time. Between 2002 and 2015, REGISTRATIONS followed a u-shape trend for Afghanistan, Bangladesh and Iraq, a post-2011 increase is visible for all countries. Hungary's trade has generally followed an increasing trend with these countries with the exception of Syria and Bangladesh. INCOMEDIFF (panel B) shows that the gap in incomes between Hungary and the six countries have generally decreased between 2002 and 2015, with the exception of Syria, although there is significant variation. In panel C, UCDP reflects trends in conflict intensity in the six countries: Kosovo and Bangladesh have not suffered significant conflict during the period, while there has been a steady stream of conflict-related deaths in Afghanistan and Iraq, and a more recent spike in Syria. Finally, panels D and F with MIGNETWORK and RECOGNITION, show Hungary's asylum policy was more liberal during the early 2000's, with higher recognition rates. Asylum seekers from Iraq and Afghanistan were most likely to be given refugee status, while more recent Syrian asylum seekers have been less likely to gain protection.

<TABLE 3>

<FIGURE 1>

Table 4 contains the initial estimates on the determinants of asylum seeker registrations in Hungary. For the origin specific variables CIVLIB, POLRIGHT and PTS are not significant in either of three models, which corresponds to the findings discussed earlier. PARTFREE and NFREE is significant at 5% and 10% respectively which means that if a country is partially free from oppression or not free at all, fewer people will have the option to flee. UCDP is significant in all three models, although only at 10% in the preferred FE model. This means that if the number of fatalities due to violence per 1,000 inhabitants in the country of origin increases by one standard deviation (0.35), then asylum seeker registrations will increase by around 28%. Among the destination specific variables, MIG-NETWORK was significant only in the OLS and RE models. AID and TRADE were not significant. While DISTANCE, due to its time invariant nature, could not be used in the FE model, it was significant in the RE model, indicating that Hungary may expect more asylum seekers from geographically closer countries. Concerning the economic pull factors, no variable turned out to be significant in the FE model, although the unemployment rate and welfare expenditures were significant in the OLS and RE models. WELFEXP, due to its mostly time invariant nature, could not be used in the FE model. Three variables measuring deterrence (RECOGNITION, POLPARTIES and SMUGGLING) were significant in the OLS and RE models. RECOGNITION was also significant in the FE model at 10% and means that if one additional asylum seeker is recognised as a refugee REGISTRATIONS will increase by 0.44%. THS is not significant in the OLS and RE models, but is significant in the FE model at 5%, although with a negligible effect. Also, its sign is counter-intuitively positive, i.e. higher numbers of captured illegal border crossers lead to more asylum applications. This is most likely due to the endogeneity bias coming from the two-way causation between the two variables. It is also reasonable to expect that the share of right wing parties in Parliament (POLPARTIES) has an impact, as it is highly significant in both the OLS and RE models. However, due to its mostly time invariant nature, it could not be used in the FE model. Finally, all three models include time dummies, which are jointly significant in all cases (in the FE model, F (12, 23) = 13.46, p= 0.000). R² is reasonably high at 0.462 for the FE model, which shows that overall, it explains a good portion of variance in the dependent variable.

<TABLE 4>

The sensitivity analysis presented in table 5 focused on removing variables. Initially, in Model 1, the origin specific insignificant variables were removed, which increased the significance of THS, UCDP and PARTFREE, while NFREE lost its significance. Second, in Model 2, the insignificant destination specific variables were removed (POLPARTIES, UNEMP, WELFEXP) together with DISTANCE and MIG-NETWORK. This did not impact on the significance of the variables of interest. Third, in Model 3, the TRADE and AID variables were removed. This impacted only slightly on the variables of interest. Finally, the remaining economic indicator INCOMEDIFF was removed, which increased the significance of UCDP, RECOGNITION, SMUGGLING, while decreased that of PARTFREE.

<TABLE 5>

The results of the sensitivity analysis show that among the push variables UCDP is significant at a very high level. This means that the push effect of violent conflict in the country of origin influences asylum registrations in Hungary to a remarkable degree. At the same time the dummy variable PARTFREE is also significant: people are less likely to leave, if they are living in a partially free country. At the same time NFREE does not seem to have an impact on asylum flows. The economic variables do not have an influence on asylum flows either. The qualification and deterrence indicators offer an interesting result: if an additional asylum seeker is recognized as a refugee, then this will increase registrations, but the deterrence indicators (THS and SMUGGLING) do not seem to impact negatively on asylum seeker flows, which shows that the relative tightness of the Hungarian border up until the end of 2016 was not a deterrent. This is confirmed by Beznec (2016: 50), who mentions that in 2016 the fence on the Hungarian-Serbian border was "in practice incapable of stopping irregular transit migration".

These findings are consistent with the literature. Recognition, and the level of violence in the country of origin were both significant. In addition, we found no evidence that economic factors impact on the destination choices of asylum seekers, therefore based on these findings, a significant amount of asylum seekers registering in Hungary may have a justifiable claim for refugee status. These findings resonate with those of Juhász et al. (2015), who argued that the majority of applicants seems to have come from war zones. While it would be possible to examine the question with more sophisticated econometric methods, especially in terms of handling endogeneity, as our results are in line with the consensus in the quantitative literature on asylum seeker choices, as well as the qualitative literature on the Balkans corridor, we believe that our model identifies the factors which lead asylum seekers to register in Hungary well.

6. CONCLUSIONS

This article aimed to take stock of the factors which determine why asylum seekers choose Hungary as their entry point to the EU between 2002 and 2016, representing the first attempt to analyze the determinants of asylum seeker choices to a CEE country. The paper had two goals: to analyze why asylum seeker chose Hungary, and to test claims of the Hungarian government which argued that people arriving are economic migrants and not refugees. According to the results, the main determinant was Hungary's recognition rate. Factors such as income, unemployment, trade or aid did not influence asylum seekers in their choice of Hungary, nor did the increasing harshness of the Hungarian border, at least until the end of 2015, when the government started building a fence and significantly increased patrols along the border, nor in 2016. We do not dispute the fact that Hungary's geographic position, i.e. that it lies on the Balkans migration route is also a determinant, but we clearly show that there have been other factors at play as well. Many asylum seekers, despite lodging their applications in Hungary, most likely view it as a transit country along their route, which is partly shown by the low number of successful asylum decisions (see also Juhász et al. 2015).

Furthermore, despite the government's rhetoric and actions, our results clearly show that labelling asylum seekers who are fleeing conflict as 'illegal economic migrants' is false. Economic variables have no impact on the choices of asylum seekers, while fleeing from conflict is a highly significant determinant. This result is consistent with the view of the European Commission, which opened an infringement procedure against Hungary in December 2015 concerning changes in its asylum law. The Commission also found that Hungary does not comply with the Asylum Procedures, Reception Conditions, Return Conditions Directives as well as certain provisions of the Charter of Fundamental Rights (EC 2017). All this implies that as long as there is violence in the respective countries of origin, asylum seekers will continue to apply for refugee status in Hungary.

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Table 1. Asylum applications to selected Central and Eastern European Countries (2002-2016)

COUNTRY/TIME	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
European Union (27 countries)	421,470	344,800	276,675	234,675	197,410	222,635	225,150	263,835	259,400	309,040	335,290	431,090	626,960	1,322,845	1,260,910
Bulgaria	2,890	1,320	985	700	500	815	745	855	1,025	890	1,385	7,145	11,080	20,390	19,420
Croatia												1,075	450	210	2,225
Czech Republic	8,485	11,400	5,300	3,590	2,730	1,585	1,645	1,235	775	750	740	695	1,145	1,515	1,475
Hungary	6,410	2,400	1,600	1,610	2,115	3,420	3,175	4,665	2,095	1,690	2,155	18,895	42,775	177,135	29,430
Poland	5,170	6,810	7,925	5,240	4,225	7,205	8,515	10,590	6,540	6,885	10,750	15,240	8,020	12,190	12,305
Romania	1,000	885	545	485	380	660	1,175	960	885	1,720	2,510	1,495	1,545	1,260	1,880
Slovenia	650	1,050	1,090	1,550	500	370	255	190	240	355	295	270	385	275	1,310
Slovakia	9,745	10,300	11,395	3,550	2,850	2,640	895	805	540	490	730	440	330	330	145

Source: Eurostat (2018)

Table 2. Summary of the variables

	Source	Unit	Literature			
Dependant variable						
Asylum seeker registrations in Hungary from country <i>i</i> in year <i>t</i>	gistrations in Hungary		Moore and Shellman (2007); Hatton (2016); Barthel and Neumayer (2015).			
Independent variables						
Freedom rating	Freedom House	PF, NF, F	Moore and Shellman (2007).			
Civil liberties	Freedom House	1 to 7	Neumayer (2005); Hatton (2016: 442).			
Political rights	Freedom House	1 to 7	Neumayer (2005); Hatton (2016).			
Purdue political terror	Purdue School	1 to 5	Moore and Shellman (2007); Rotte and Vogler (1999); Hatton (2016).			
Deaths due to violent conflict	UCDP	Number of deaths per 1000 inhabitants	Hatton (2016).			
Total trade between Hungary and country of origin	International Trade Centre	Constant 2014 US dollars per 1000 inhabitants	Neumayer (2005); Rotte and Vogler (1999); Berthélen et al. (2009).			
Aid (official development assistance)	OECD	Constant 2014 US dollars per 1000 inhabitants	Neumayer (2005); Berthélemy et al. (2009); Barthel and Neumayer (2015).			
Migration network effect Eurostat		Average number of registrations from the origin country in the previous two years	Neumayer (2004); Rotte and Vogler (1999).			
Population	UN	Number of people, thousands	Davenport et al. (2003)			
Distance	www.distancefro mto.net	Kilometres	Neumayer (2004); Berthélemy (2009); Hatton (2016).			
Income differential UN between Hungary and country of origin		Difference between GDP per capitas in constant 2014 US dollars	Rotte and Vogler (1999).			
Unemployment, Hungary	employment, Hungary KSH		Thielemann (2003); Neumayer (2005); Moore and Shellman (2007).			
Social expenditure, Hungary	KSH	Hungarian Forint	Neumayer (2004).			
Recognition	Eurostat	Number of positive decisions	Böcker and Havinga (1998); Neumayer (2004); Keogh (2013).			
Share of right wing parties in the Hungarian Parliament	n the Hungarian		Neumayer (2004).			
Captured illegal border crossers	OZIRIS	Number of people	Thielemann (2003).			
Apprehended human OZIRIS smugglers		Number of people	Thielemann (2003).			

Table 3. Descriptive statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
Dependant variable					
REGISTRATIONS	345	826.4957	4778.001	0	64585
Independent variables					
PARTFREE	344	0.380814	0.486294	0	1
NFREE	344	0.5	0.500728	0	1
CIVLIB	344	4.75	1.391876	2	7
POLRIGHT	344	4.97093	1.663981	2	7
PTS	354	3.559322	0.932957	1	5
UCDP	355	0.073845	0.352063	0	3.56179
TRADE	353	12653.89	42701.11	0	316039.9
AID	356	36.24168	172.8973	0	2459.03
MIGNETWORK	342	537.1257	2893.008	0	35720
POPULATION	360	151231.3	342924.3	0	1378665
DISTANCE	360	3950.487	2217.581	351.17	8081.68
INCOMEDIFF	360	12.2217	22.93411	1.139672	134.889
UNEMP	360	0.080168	0.020559	0.05168	0.11172
WELFEXP	360	22929.25	4566.994	14649.51	27346.83
RECOGNITION	354	16.76554	62.41417	0	865
POLPARTIES	360	0.612549	0.166881	0.421875	0.802597
THS	360	35672.27	97365.35	2471	397418
SMUGGLING	360	390	183.3431	144	688

Table 4. Regression results

	Pooled OLS	RE	\mathbf{FE}
	InREGISTRATIONS	InREGISTRATIONS	InREGISTRATIONS
PARTFREE	0.341	-0.242	-1.213**
	(0.899)	(0.772)	(0.446)
NFREE	-0.394	-0.712	-1.442*
	(1.434)	(1.099)	(0.817)
CIVLIB	0.208	0.303	0.440
	(0.266)	(0.285)	(0.407)
POLRIGHT	-0.0233	-0.000160	0.0189
	(0.199)	(0.147)	(0.243)
PTS	0.0510	-0.0767	-0.0432
	(0.244)	(0.196)	(0.167)
UCDP	0.554**	0.986***	0.809*
	(0.236)	(0.271)	(0.423)
L.lnTRADE	-0.0201	0.0440	0.0980
	(0.125)	(0.119)	(0.161)
L.AID	0.000956	0.000257	0.0000658
	(0.000691)	(0.000267)	(0.000208)
MIG-NETWORK	0.000114**	0.0000656*	0.0000420
	(0.0000426)	(0.0000351)	(0.0000427)
POPULATION	7.10e-08	0.000000162	-0.00000196
	(0.000000604)	(0.000000588)	(0.00000575)
DISTANCE	-0.000168	-0.000243*	0
	(0.000133)	(0.000131)	(.)
L.lnINCOMEDIFF	0.0325	0.305	1.997
	(0.333)	(0.337)	(1.668)
UNEMP	-103.1***	-98.14***	0
	(19.40)	(19.19)	(.)
InWELFEXP	71.05***	68.21***	0
	(12.39)	(12.44)	(.)
RECOGNITION	0.00700***	0.00514***	0.00440^{*}
	(0.00170)	(0.00158)	(0.00239)
POLPARTIES	-127.3***	-122.4***	0
	(23.24)	(23.28)	(.)
L.THS	0.00000161	0.00000214	0.00000336**
	(0.0000286)	(0.0000280)	(0.0000124)
SMUGGLING	-0.0219***	-0.0206***	0.00138
	(0.00479)	(0.00481)	(0.00135)
Year fixed effects	Yes	Yes	Yes
Constant	-600.0***	-576.6***	-3.075
	(104.9)	(105.2)	(3.762)
Observations	316	316	316
R^2	0.449		0.462

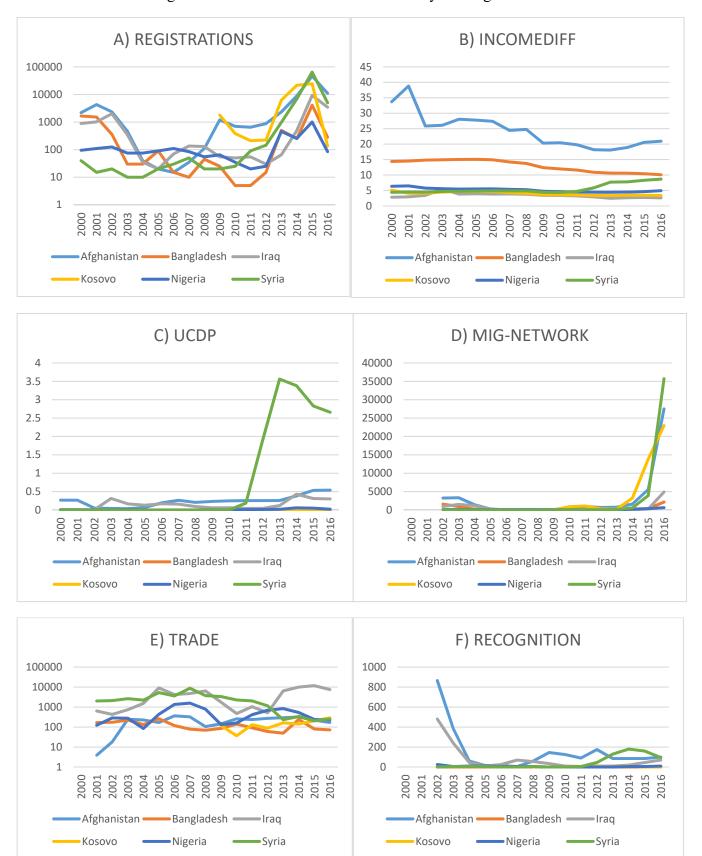
Standard errors in parentheses p < 0.10, p < 0.05, p < 0.01

Table 5. Sensitivity analysis

	FE	FE	FE	FE
	InREGISTRATIO NS	InREGISTRATIO NS	InREGISTRATIO NS	InREGISTRATIO NS
UCDP	0.821**	0.892**	0.863**	1.254***
	(0.361)	(0.416)	(0.404)	(0.256)
RECOGNITION	0.00449*	0.00442*	0.00408*	0.00474**
	(0.00225)	(0.00232)	(0.00225)	(0.00172)
L.THS	0.00000343***	0.00000388***	0.00000400***	0.00000343***
	(0.00000111)	(0.00000974)	(0.00000977)	(0.000000982)
SMUGGLING	0.00177	0.00176	0.00184	0.00302***
	(0.00127)	(0.00130)	(0.00129)	(0.00100)
PARTFREE	-1.160***	-1.185***	-1.116***	-1.102**
	(0.401)	(0.400)	(0.372)	(0.395)
NFREE	-1.195	-1.185	-1.091	-1.355
	(1.076)	(1.104)	(1.133)	(1.151)
L.lnINCOMEDIF F	2.167	2.262	2.180	
	(1.584)	(1.564)	(1.563)	
L.AID	0.000119	0.0000829	(210 00)	
	(0.000208)	(0.000184)		
L.lnTRADE	0.100	0.0838		
	(0.161)	(0.163)		
UNEMP	0	(1 11)		
	(.)			
InWELFEXP	0			
	(.)			
DISTANCE	0			
	(.)			
POLPARTIES	0			
	(.)			
MIG-NETWORK	0			
	(.)			
CIVLIB				
POLRIGHT				
PTS				
POPULATION				
Year fixed effects	Yes	Yes	Yes	Yes
Constant	-0.475	-0.523	0.0542	3.767***
Constant	(2.790)	(2.779)	(2.525)	(0.653)
Observations	316	316	320	320
R ²	0.456	0.452	0.451	0.432
Standard errors in pare	1	ひ・ゴンム	0.731	0.732

Standard errors in parentheses p < 0.10, p < 0.05, p < 0.01

Figure 1. Trends in selected variables in key sending countries



Source: authors

ENDNOTE

¹ Hungary did provide asylum protection before 1944 to a number of Polish, French, Czech and Jewish refugees. However, when Hungary was occupied by Germany in 1944, these refugees were arrested (Wetzel 2009).