Assessing the differentiated impacts of COVID-19 on the immigration flows to Europe

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Abstract: The immediate effects of COVID-19 on mortality, fertility, and internal and international migration have been widely studied. Particularly, immigration to high-income countries declined in 2020. However, the persistence of these declines, and the extent to which they have impacted different migration corridors are yet to be established. Drawing on immigration flows from Eurostat and ARIMA time-series models, we assess the impact of COVID-19 on different immigration streams to seven European countries. We forecast counterfactual levels of immigration in 2020 and 2021 assuming no pandemic, and compare these estimates with actual immigration counts. We use regression modelling to explore the role of immigrants´ origin, distance, stringency measures and GDP trends at origins and destinations as potential driving forces of changes in immigration during COVID-19. Our results show that, while there was a general decline in immigration during 2020, inflows returned to expected levels in 2021, except for Spain. However, immigration corridors originating from outside the Schengen Area were still hardly affected in 2021. Immigrant´s origin emerged as the main factor modulating immigration changes during the pandemic, and to a lesser extent stringency measures and GDP trends in destination countries. Contextual factors at origin seem to have been less important.

Keywords: Immigration corridors, origin-destination, COVID-19, forecasting, ARIMA, Schengen Area, stringency measures, economic trends, push factors, pull factors, Europe.

1. Introduction

Demographic components were strongly affected by COVID-19 during early stages of the pandemic (González-Leonardo and Spijker, 2023). Life expectancy dropped in almost all the countries, with important cross-national differences (e.g., Marois et al., 2020; Aburto et al. 2021; Heuveline & Tzen, 2021). Fertility declined in some countries, while it remained constant or variations were no statistically significant in others (e.g., Aassve et al 2021; Sobotka et al., 2023). Globally, levels of internal migration declined and mobility patterns changed across the rural-urban continuum, increasing movements away from large cities to areas with lower population densities and declining inflows to urban centers (e.g. González-Leonardo, 2022a and 2022b; Stawarz, 2022; Rowe at al., 2023a and 2023b). Drops in international migration were also documented (UN, 2021), once again with significant differences amongst countries (González-Leonardo et al., 2023).

Nonetheless, disruptions to demographic components due to the pandemic seem to have been temporary. Life expectancy tended to pre-pandemic levels already in 2021 (Schöley et al., 2022) and fertility recovered or exceeded the values register prior to COVID-19 over 2021 in countries where a decline was previously observed (Sobotka et al., 2023; Nisén et al., 2022). Internal migration intensities and patterns also seem to have returned to normal in most countries (Wang et al., 2022; Rowe et al., 2023b; Perales and Bernard, 2023).

Previous work documented that immigration flows to receiving high-income countries dropped during the first year of the pandemic (González-Leonardo et al., 2023). Australia, Spain and Sweden saw the largest declines, totalling 60%, 45% and 36%, respectively. Reductions from 16% to 27% were estimated in the United States (27.2%), France (26.5%), Norway (25.5%), Italy (21.6%), Canada (20.2%) and the Netherlands (15.5%). Non-statistically significant declines from 4% to 15% were observed in Denmark, Ireland, Austria and Switzerland. However, if low levels of immigration persisted across countries over 2021 and how immigration corridors from different origins were affected still remain unknown.

We could anticipate that immigration flows to high-income destination countries would recover to pre-pandemic levels in the course of 2021, as lockdowns and travel restrictions were progressively eased. Nonetheless, different recovery speeds can be expected across migration corridors. While travel restrictions within the Schengen Area[1] were quickly relaxed, they were maintained for people arriving from other countries. Therefore, we can expect that gross immigration flows recovered to pre-pandemic levels faster in Schengen countries which normally receive a large proportion of immigrants from the Schengen Areas (e.g., Finland or Denmark). In contrast, more pronounced and longer reductions in total immigration can be expected in countries with a large share of immigrants from outside the Schengen Area (e.g., Spain or Italy). We also hypothesise that long-distance migration (e.g., from Latin America to Spain) could have been more impacted than short-distance flows, showing a slower recovery, as travel restrictions mainly affected air travel, the main

[1] The Schengen Area includes 27 countries: Austria, Belgium, Czech Republic, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, and Switzerland.

transportation for long-distance journeys. So far, the immigrants´ origin and the distance of migration flows as potential driving forces of immigration changes during the pandemic remain unexplored, as other potential driving forces, such as the combining effect of stringency measures and economic trends during COVID-19 both at origin and destination, acting as push and pull factors in the decision to migrate during the pandemic.

High-income receiving countries with great levels of stringency usually registered high declines in immigration during 2020 (González-Leonardo et al., 2023). However, evidence is limited to destination countries during the first year of the pandemic and the role of stringency measures at origin on constraining migration flows remains unknown. Different levels of stringency in sending countries could have potentially impacted emigration plans and, consequently, immigration to destination countries.

Otherwise, the effect of variating economic impact of COVID-19 on international migration corridors are yet to be established. The economic downturn caused by the pandemic in high-income receiving countries, although it generally was short-term, could potentially constrained the need for international workers (Blustein et al., 2020) and, therefore, immigration flows. Economic impacts in sending countries could have also affected international migration. For example, the lack of financial resources to migrate due to the economic downturn during the pandemic (Martin and Bergmann, 2021), which was usually longer in developing countries than in developed ones (Yeyati & Filippini, 2021). Thus, we could expect different levels of recovery across migration corridors depending on the economic context both at origin and destination.

Monitoring international migration is essential to ensure appropriate policies in countries with birth and labor force deficits. On the one hand, immigration is the main demographic component to mitigate depopulation by increasing the number of young adults and fertility levels (Wilson et al., 2013; Abel 2018; Newsham and Rowe 2021). On the other hand, it brings labor force and skills where they are needed (Van Ham et al. 2001) and support the welfare state and intergenerational transfers by sustaining suitable labor force dependency ratios (Lee et al 2014).

In this paper, we quantify impacts of COVID-19 on immigration corridors to Austria, Denmark, Finland, Italy, the Netherlands, Norway and Spain from the main countries of origin. We estimate the counterfactual levels of immigration in 2020 and 2021 in the absence of the pandemic, using Eurostat data of immigration flows and Auto Regressive Integrated Moving Average (ARIMA) time-series forecasting models, and compare these levels to observed counts. We also seek to identify the association between immigration changes and different potential driving forces using a linear regression model. Specifically, we test the role of immigrants´ origin (within or outside the Schengen Area), the distance of migration flows, stringency levels and GDP trends both at origin and destination. We aim to address the following research questions:

1. To what extent did declines in immigration persist in 2021?
2. Which immigration corridors were more impacted during the pandemic?
3. How does the extent of variation on immigration levels relate to visa type, distance, stringency measures and GDP trends at origin and destination?

The rest of the paper is structured as follows: We next explain the data and methods used in this study; we then present our results where, first, we analyse changes in immigration to the seven European states by different counties of origin; and, second, we explore the effect of potential driving forces on immigration changes. Finally, we discuss our results and potential implications.

2. Data and methods

Stage 1. ARIMA models to assess changes in immigration corridors

We collect immigration flows data by country of origin (previous residence) from the Eurostat online database (MIGR_IMM8) between 2012 and 2021 for Austria, Denmark, Finland, Italy, the Netherlands, Norway and Spain. Only these countries provided sufficient time series of bilateral flows. These data are based on annual official statistics and are provided by the statistical offices of European countries. We restrict our analysis to immigration because of high levels of underreporting in emigration (Wisniowski et al., 2013) and a large proportion of missing values in destination countries for emigrants. Immigrants are defined as persons who live or intend to live for at least 1 year in the destination country. It means that individuals who arrived during 2020 and 2021 and stayed in destination countries for less than 1 year were removed from the data.

To assess changes in immigration volumes during the pandemic, we adopt the method used by González-Leonardo at al. (2023a). First, we estimate country-specific ARIMA models to forecast the expected gross immigration counts in 2020 and 2021 for each country of destination if the pandemic had not occurred, totalling seven forecasted flows. Second, we forecast the expected bilateral flows to each destination country from the ten main countries of origin, totalling 70 forecasted flows. Then, we compare the forecasted immigration values to the actual immigration counts in the same years for each immigration stream. Observed counts included within the estimated 95% CIs for predicted flows are considered as not statistically significant different, as they are within the uncertainty range of the forecast. Actual counts outside the CIs of predicted flows are considered as statistically significant different. We use 2012-2019 data to produce country-specific forecasts of immigration in 2020 and 2021.

ARIMA models include three components: an autoregressive (AR) process, a moving average (MA) and an integrated (I) element. These components capture the long-term, stochastic and short-term trends of a time series, respectively. The AR and MA components control for temporal autocorrelation in a time series as a result of two mechanisms. The first assumes a variable (Y) at time t (Y_t) which is explained by its past value(s) (i.e., $y_{t-1}, y_{t-2}, \cdots, y_{t-p}$). The second assumes Y_t is a function of current and past moving averages of error terms (e.g., $u_{t-1} + u_{t-2} + \cdots + u_{t-q}$). Therefore, current deviations from the mean depends on previous deviations. A general ARMA (p, q) model takes the form of:

$$Y_t = \gamma + \alpha_1 Y_{t-1} + \cdots + \alpha_p Y_{t-p} - \vartheta_1 u_{t-1} - \cdots - \vartheta_q u_{t-q} + u_t \qquad (1)$$

p denotes the order of the autoregressive term and q the moving average term. Fitting a time series in an ARIMA model requires the data to be weakly stationary which is characterized by a constant

mean and variance of Y_t over time, and the covariance of Y_t to be time-invariant (i.e., to only depend on the lag between the current and past value and not the actual time at which the covariance is computed) (Hyndman and Athanasopoulos 2018). Nonetheless, weak stationarity in time series is rare. They often must be integrated, so time series must be differentiated to be stationarity. As a result, its statistical properties (i.e., mean, variance and autocorrelation) are constant over time. Equation (1) can be modified to represent a general ARIMA (p, d, q) model:

$$y_t = \vartheta + \varphi_1 y_{t-1} + \cdots + \varphi_p y_{t-p} - \theta_1 u_{t-1} - \cdots - \theta_q u_{t-q} + u_t \qquad (2)$$

where: $y_t = Y_t - Y_{t-1}$ for a first order differencing model, and d denotes the degree of first differencing.

We fit specific ARIMA models for each country based on model selecting tools which allows to identify the best model for each trend. We identify the best fitting ARIMA model for each country using unit root tests to assess for stationarity and the Akaike Information Criterion to determine the appropriate order of autoregressive, moving average and differencing terms. Models are estimated using maximum likelihood. Through our evaluation, we determine the best fitting model specifications. To check the robustness of the modelling strategy, we perform robustness checks by forecasting 2019 and compared results with observed values for the same year (see González-Leonardo et al., 2023a for more details on the sensitivity analysis).

Stage 2. Exploring potential driving forces using linear models

We use a multivariate linear regression model (see equation 3) to understand percentage changes of the 70 immigration streams in 2020 and 2021 between forecasted immigration flows if the pandemic had not occurred and observed counts. We seek to understand these changes as a function of immigrants´ s origin (within or outside the Schengen Area), distance of migration flows, stringency measures and GDP trends both at origin and destination.

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \ldots \beta_p X_{ip} + \varepsilon \qquad (3)$$

where: Y_i is the dependent variable (immigration changes), β_0 the intercept, X_i the independent variable (distance, Schengen Visa, stringency measures and GDP trends at origin and destination), β_i the slope coefficient for each independent variable and ε the error term.

We create a Schengen Area variable variable to capture the effect of variating entry restrictions by country of origin into the Schengen territory, including two categories, 0 (non-Schengen Area) and 1 (Schengen Area). We compute the distance (Km) variable of immigration flows using the polygon centroid of each country, except for Russia where we use Moscow as the reference point, since most of the Russian population is concentrated in the west of the country. We use the annual mean of the stringency index obtained from the Oxford COVID-19 Government Response Tracker. The stringency index is a composite indicator that summaries the joining effect of nine individual stringency measures, travel restrictions, mobility restrictions, stay-at-home requirements, school closing, workplace closing, cancelling public events, restrictions on gathering, closing of public transport and public information campaigns, and it varies from 0 to 100 (see Hale et al., 2021 for more details). We use World bank data to calculate the % GDP change both at origin and destination in 2020 and 2021.

We standardise all continuous explanatory variables by subtracting the mean and dividing by two standard deviations (Gelman, 2008). To check the robustness of our model, we test the distribution of our dependent variable, potential collinearity issues using a correlation matrix and individual relationships between immigration changes and each explanatory variable (see Figures S1, S2 and S3 in the SM).

2. Results

Assessing changes in immigration corridors to Europe

To assess the impact of COVID-19 on immigration, we analyse the percentage changes between expected immigration flows if the pandemic had not occurred and actual flows in Austria, Denmark, Finland, Italy, the Netherlands, Norway and Spain. As variations on immigration are expected to be country-specific according to migrants´ origin, we then explore immigration changes to the seven European states from the main ten countries of origin. As mentioned in the Data and methods section, we focus the analysis on statistically significant changes.

Figure 1 displays the percentage change in the gross immigration flows in 2020 and 2021 (see Table S1 in the SM for observed and forecasted counts). In 2020, the pandemic triggered a general decline in immigration in the seven European countries, except for Finland, although only results in Spain, Norway, Italy and the Netherlands are statistically significant. The largest decline occurred in Spain, totalling -45.4%. Norway, Italy and the Netherlands registered declines of -25.5%, -21.6% and -15.5%, respectively. In 2021, however, there were no large and statistically significant differences between predicted and actual immigration flows, suggesting that levels of immigration returned to normal in the countries of our analysis. The only exception was Spain, where immigration seem to have recorded a long-lasting decline-similar to that of 2020.

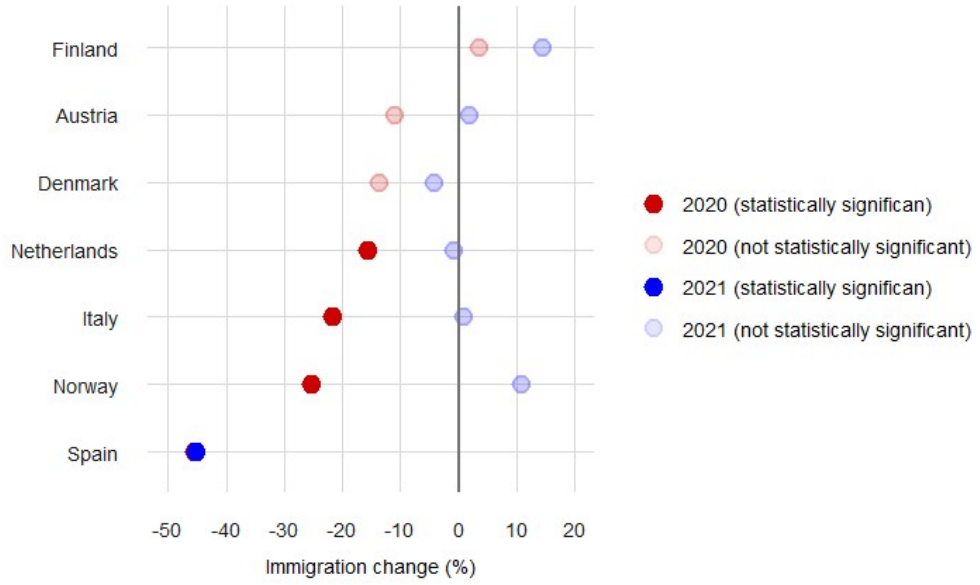

Figure 1. Immigration change between forecasted and observed counts in 2020 and 2021

We next explore the percentage change between expected and observed bilateral immigration flows in 2020 and 2021 from the main ten origin countries to Austria, Denmark, Finland, Italy, the Netherlands, Norway and Spain (Figure 2-see tables S2 to S8 in the SM for observed and forecasted immigration counts). In 2020, Figure 2 shows a statistically significant decline in immigration levels in most corridors originating from outside the Schengen Area, particularly in those directed to Spain and Italy. Inflows from different Latin American countries, Morocco and Romania to Spain dropped between 45% and 60%. Immigration from Philippines to Norway declined by 60%. Arrivals from Brazil, Albania, Morocco, India, Romania, China and Bangladesh to Italy decreased by between 38% and 70%. Inflows from India, China, United Kingdom and United States to the Netherland reduced by between 20% and 60%. Immigration from Serbia to Austria declined by 24%; and inflows from India to Finland dropped by 37%. Changes in immigration from countries within the Schengen territory were smaller and not statistically different from no change, suggesting that they were much less affected by COVID-19 than those coming from outside the Schengen Area.

Immigration differences between expected and observed levels were generally lower in 2021 than in 2020 with not statistically significant estimations across most corridors, mainly in those coming within the Schengen Area. However, we still identify exceptions in several inflows coming from outside the Schengen territory. Immigrations to Spain, the majority from Latin America, stood out, displaying a similar decline in immigration during 2021 compared to 2020. That is also the case in other important immigration corridors, such as from Philippines to Norway, Brazil and Albania to Italy, India, United Kingdom and United States to the Netherlands and United Kingdom to Denmark.

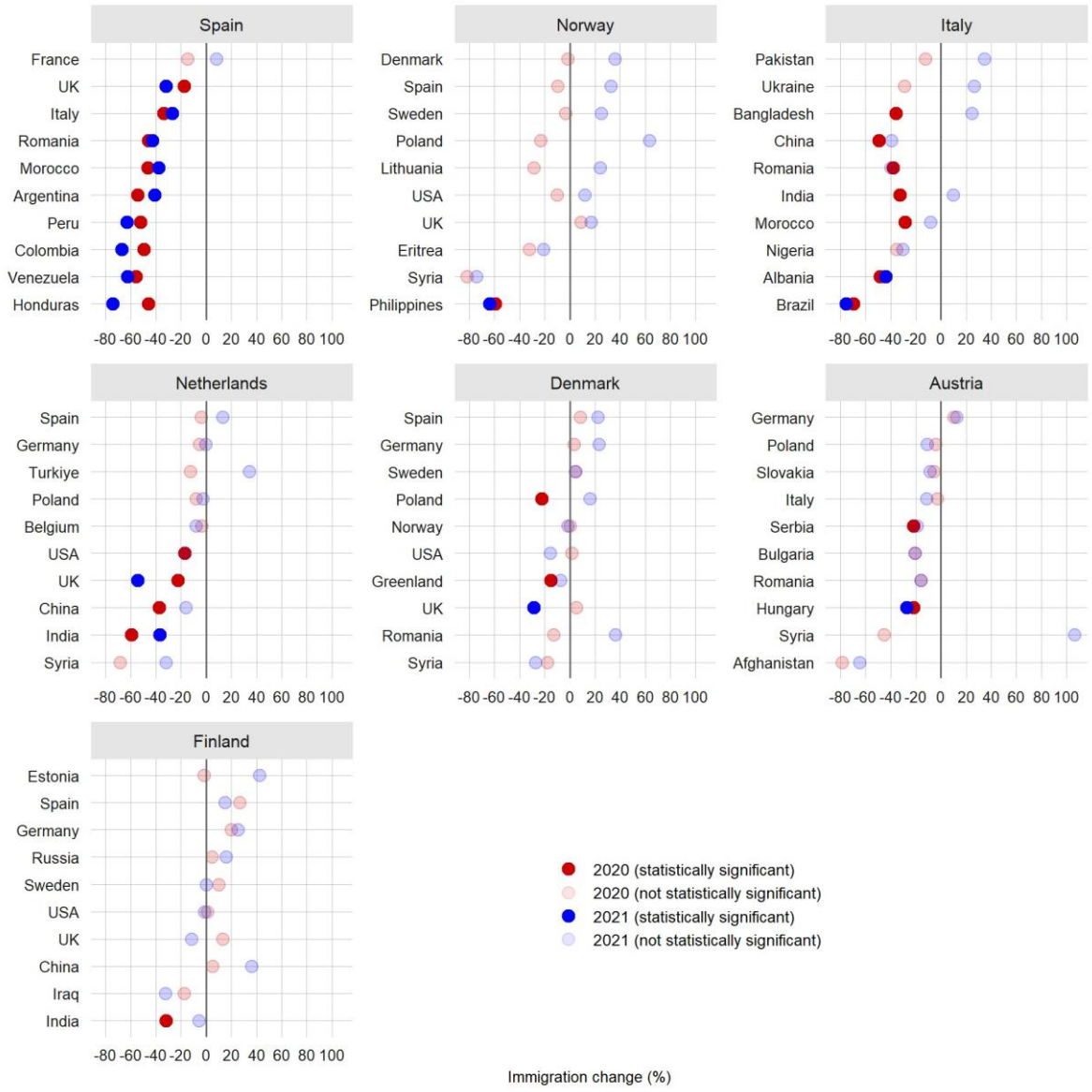

Figure 2. Immigration changes between forecasted and observed counts in 2020 and 2021 by most important countries of origin

Exploring the driving forces of immigration changes

In this section, we explore the effect of immigrants´ origin (Schengen Area or non-Schengen Area), distance, stringency measures and GDP trends at origins and destinations on immigration changes between forecasted and observed flows during 2020 and 2021 in Austria, Denmark, Finland, Italy, the Netherlands, Norway and Spain. Table 1 shows the regression results including coefficients, standard errors, confidence intervals and p-values (see relationships between immigration changes and individual explanatory variables in Figure S3).

We identify the strongest and statistically significant effect of Schengen Area on immigration changes during COVID-19, with a positive coefficient of 13.44. This result provides a quantification of our findings from the previous section indicating that immigration from countries outside the Schengen Area registered the largest drops. It also reflects different entry requirements across countries, as travel restrictions were gradually relaxed within the Schengen Area in 2021, but they remained in place for people from countries outside this area until late 2022. After controlling for the Schengen Area variable, distance shows a small deterrent effect. In the previous section, we saw that inflows from distant countries declined the most. However, our model suggests that immigration from countries far away from Europe did not drop to a greater extent because of the long journeys migrants had to travel in the context of the pandemic, but as a results of visa-related entry restrictions, as distant countries are outside the Schengen territory.

The stringency index at destination countries displays a negative and statistically significant coefficient of -0.55. This finding suggests that inflows tended to drop for destinations with high levels of stringency, such as Spain and Italy. GDP change at destination shows a positive and statistically significant effect of 0.884, indicating that destination countries whose economies were less affected during the pandemic tended to register lower declines in immigration flows. It could also explain why immigration flows to Spain and Italy, the destination countries with less developed economies which were more impacted during COVID-19, dropped to a greater extent than in other European countries with more advanced and robust economies, such as Finland, Norway or Austria. Results of stringency and economic conditions at origin are not statistically significant. Therefore, these factors seem to have had no effect on modulating migration flows during the pandemic. Our model explains 33.1% of the variance. It provides a good understanding about some of the main variables explaining immigration changes during the pandemic, but we recognise that migration is a multi-factorial phenomenon (Charles-Edwards et al., 2023) and other variables at origin and destination may have had a variating impact on the different migration streams to Europe.

Table 1. Linear model including explanatory variables of changes in immigration in 2020-21

Variables	Estimate	Std. error	Lower CI	Upper CI	p-value
(Intercept)	2.643	18.228	-33.424	38.710	0.885
Distance (Km)	-0.003	0.001	-0.005	-0.001	0.005 **
Schengen Area (yes)	13.436	5.881	1.800	25.072	0.024 *
Stringency index in destination	-0.552	0.245	-1.036	-0.068	0.026 *
Stringency index at origin	0.189	0.316	-0.436	0.814	0.551
GDP change in destination	0.884	0.222	0.446	1.323	0.000 ***
GDP change at origin	0.072	0.115	-0.155	0.299	0.532
R-squared	0.331				

Note: * p<0.05, ** p<0.01, *** p<0.001.

Discussion and conclusion

Our results show a pattern of widespread reductions in immigration flows during 2020 but a rapid recovery in 2021 to expected levels if the pandemic had not occurred. Finland, Austria, Denmark, the Netherlands, Italy and Norway all displayed similar observed levels of immigration to those expected in 2021. However, Spain continued to register actual flows of immigration 45% below its expected levels. Similarly, migration corridors originating from countries outside the Schengen Area showed consistent and enduring reductions in migration levels to Europe. Declines in migration flows from Latin American countries, for example, appeared to explain an overall reduction of immigration levels to Spain. Similarly, our findings show consistent reductions in migration levels from other countries outside the Schengen Area, such as India, Philippines, Albania or the United States.

Our results reveal that, indeed, forming part of the Schengen Area was a key determinant of the migration-corridor-specific levels of immigration change to Europe during the pandemic. Our findings indicated that migration originating from Schengen countries was less affected than that from non-Schengen countries. That is due to the fact that European countries gradually relaxed entry restrictions within the Schengen Area over 2021, while maintained restrictions for citizenships coming from other countries. Additionally, our findings revealed that destination-specific factors were more influential on moderating the levels of immigration than origin-specific forces. Stringency levels and economic changes at destination countries stood out as key contextual factors shaping immigration levels. This finding points out that pull factors were more important than push factors in the decision to migrate during COVID-19.

Our results suggest that immigration levels may have returned back to normal as COVID-19 stringency measures were completely lifted and the economy recovered in 2022 and 2023. Yet, the cost-of-living crisis, and the spread of armed conflict may have halted the recovery trend of immigration to Europe. The former could has reduced immigration, while the latter could has unleashed higher levels of inflows specifically the conflict in Ukraine which has resulted in the largest refugee crisis in Europe since WWI. The recent increase of political instability in the Middle East due to the Israeli-Palestinian conflict may also impact the international migration system, but its effects are yet to be established. Future work is needed to understand the impacts of new potential shocks on the international migration system.

Our paper contributes some first empirical evidence of the long-term impacts of COVID-19 on immigration drawing on a global sample of countries. We show that the impacts of COVID-19 on immigration were generally short-lived, returning to expected levels of immigration in most countries in our sample. Yet, reductions in immigration levels from origins outside the Schengen Area persisted in 2021, probably, as mentioned, since differential entry requirements were in place as COVID-19 restrictions were progressively relaxed. Our analysis only explores European countries as destinations and data until 2021. A more comprehensive analysis, including a global sample of countries and data after 2021, is needed to understand the full extent and persistence of the impacts of the COVID-19 pandemic on the global system of international migration as data become available. Monitoring changes on international migration levels and patterns is essential in high-income

counties, given the key role that immigration plays to mitigate depopulation, ageing and work deficits.

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Supplementary material of the manuscript "Assessing the differentiated impacts of COVID-19 on the immigration flows to Europe"

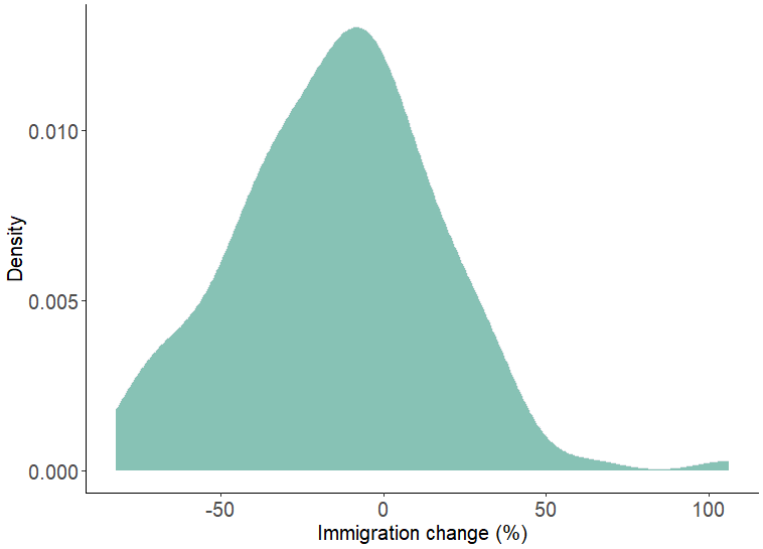

Figure S1. Distribution of the dependent variable in the model (immigration change)

Figure S2. Correlation matrix between variables in the model

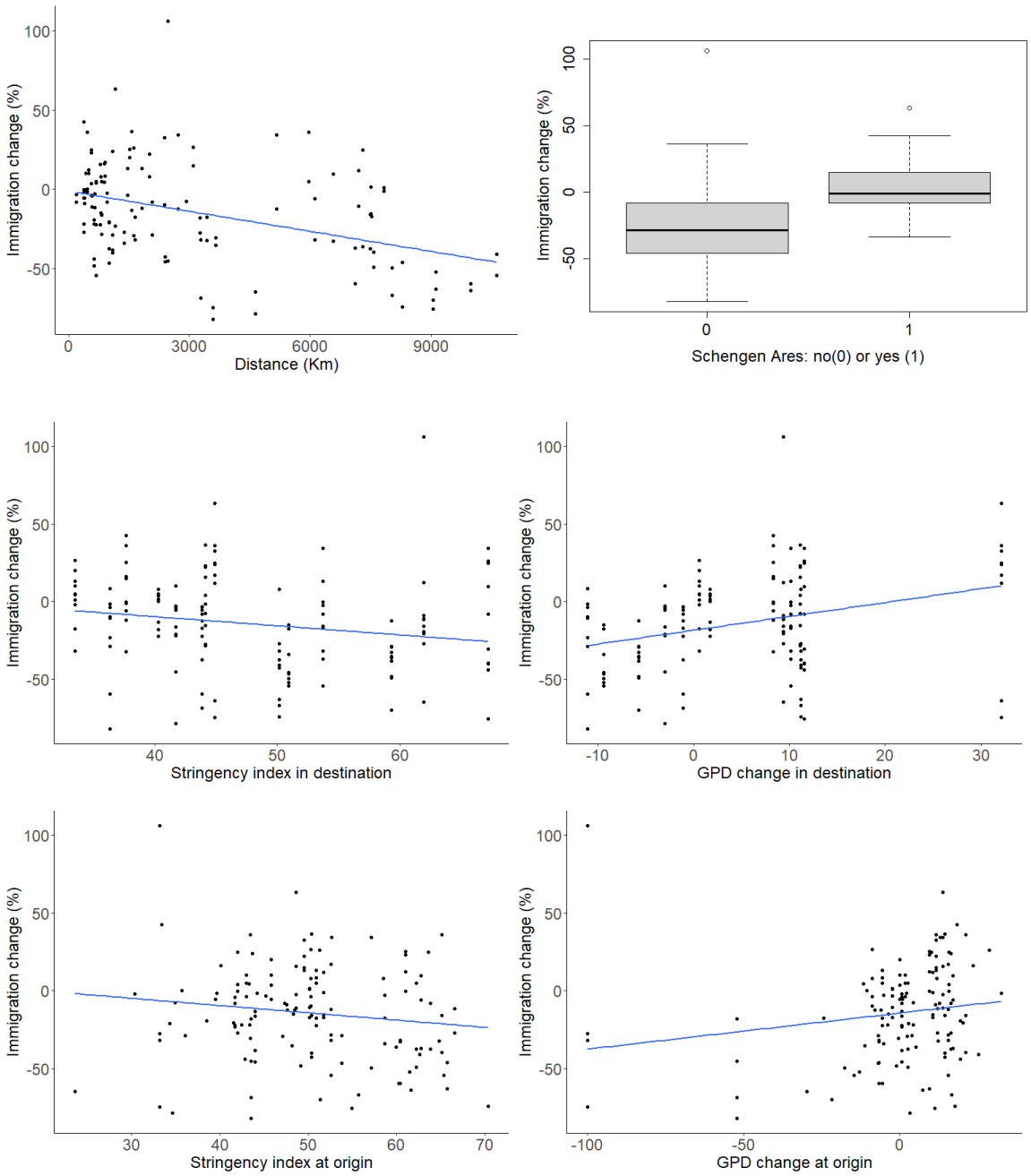

Figure S3. Correlation plots between the dependent variable (immigration change) and each independent numerical variable in the model, and box plot for the categorical independent variable Schengen Area

Table S1. Observed immigration flows from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Austria	2012	91,557			
Austria	2013	101,866			
Austria	2014	116,262			
Austria	2015	166,323			
Austria	2016	129,509			
Austria	2017	111,801			
Austria	2018	105,633			
Austria	2019	109,167			
Austria	2020	103,565	116,515	73,609	159,421
Austria	2021	118,511	116,515	73,609	159,421
Denmark	2012	54,409			
Denmark	2013	60,312			
Denmark	2014	68,388			
Denmark	2015	78,492			
Denmark	2016	74,383			
Denmark	2017	68,579			
Denmark	2018	64,669			
Denmark	2019	61,384			
Denmark	2020	57,230	66,327	51,705	80,949
Denmark	2021	63,489	66,327	51,705	80,949
Finland	2012	31,278			
Finland	2013	31,941			
Finland	2014	31,507			
Finland	2015	28,746			
Finland	2016	34,905			
Finland	2017	31,797			
Finland	2018	31,106			
Finland	2019	32,758			
Finland	2020	32,898	31,755	28,535	34,974
Finland	2021	36,364	31,755	28,535	34,974
Italy	2012	350772			
Italy	2013	307,454			
Italy	2014	277,631			
Italy	2015	280,078			
Italy	2016	300,823			
Italy	2017	343,440			
Italy	2018	332,324			
Italy	2019	332,778			
Italy	2020	247,526	315,663	262,865	368,460
Italy	2021	318,366	315,663	262,865	368,460

Continuation Table S1

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Netherlands	2012	124,566			
Netherlands	2013	129,428			
Netherlands	2014	145,323			
Netherlands	2015	166,872			
Netherlands	2016	189,232			
Netherlands	2017	189,646			
Netherlands	2018	194,306			
Netherlands	2019	215,756			
Netherlands	2020	182,244	215,756	184,382	247,130
Netherlands	2021	214,105	215,756	171,386	260,126
Norway	2012	69,908			
Norway	2013	68,313			
Norway	2014	66,903			
Norway	2015	60,816			
Norway	2016	61,460			
Norway	2017	53,351			
Norway	2018	47,864			
Norway	2019	48,680			
Norway	2020	36,287	48,680	39,783	57,577
Norway	2021	53,947	48,680	36,098	61,262
Spain	2012	304053			
Spain	2013	280,772			
Spain	2014	305,454			
Spain	2015	342,114			
Spain	2016	414,746			
Spain	2017	532,132			
Spain	2018	643,684			
Spain	2019	750,480			
Spain	2020	467,918	857,276	795,107	919,445
Spain	2021	528,856	964,072	825,058	1,103,086

Table S2. Observed immigration flows in Spain by most important countries of origin from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Argentina	2012	5,741			
Argentina	2013	6,021			
Argentina	2014	7,082			
Argentina	2015	8,768			
Argentina	2016	10,852			
Argentina	2017	14,904			
Argentina	2018	19,166			
Argentina	2019	31,306			
Argentina	2020	19,857	43,446	36,756	50,136
Argentina	2021	32,877	55,586	40,626	70,546
Colombia	2012	10,433			
Colombia	2013	9,268			
Colombia	2014	9,378			
Colombia	2015	10,928			
Colombia	2016	24,843			
Colombia	2017	36,678			
Colombia	2018	56,253			
Colombia	2019	80,324			
Colombia	2020	52,921	104,395	91,719	117,072
Colombia	2021	42,573	128,466	100,120	156,812
France	2012	10,411			
France	2013	10,548			
France	2014	11,985			
France	2015	13,507			
France	2016	13,341			
France	2017	16,290			
France	2018	16,210			
France	2019	16,550			
France	2020	14,086	16,550	13,799	19,301
France	2021	17,896	16,550	12,659	20,441
Honduras	2012	5,403			
Honduras	2013	4,424			
Honduras	2014	5,781			
Honduras	2015	7,754			
Honduras	2016	11,074			
Honduras	2017	18,573			
Honduras	2018	23,671			
Honduras	2019	29,312			
Honduras	2020	18,856	34,953	30,394	39,512
Honduras	2021	10,480	40,594	30,400	50,788
Italy	2012	12,437			
Italy	2013	12,607			
Italy	2014	14,781			
Italy	2015	17,350			
Italy	2016	18,526			
Italy	2017	22,203			
Italy	2018	22,002			
Italy	2019	21,559			
Italy	2020	14,258	21,559	17,668	25,450
Italy	2021	15,711	21,559	16,056	27,062

Continuation Table S2

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Morocco	2012	23,021			
Morocco	2013	21,035			
Morocco	2014	20,285			
Morocco	2015	24,207			
Morocco	2016	30,096			
Morocco	2017	40,372			
Morocco	2018	61,715			
Morocco	2019	73,348			
Morocco	2020	45,464	84,981	71,734	98,228
Morocco	2021	60,324	96,614	66,992	126,236
Peru	2012	6,042			
Peru	2013	5,402			
Peru	2014	5,696			
Peru	2015	6,685			
Peru	2016	9,711			
Peru	2017	15,945			
Peru	2018	21,463			
Peru	2019	31,390			
Peru	2020	19,737	41,317	36,435	46,199
Peru	2021	18,950	51,244	40,328	62,160
Romania	2012	27,248			
Romania	2013	22,748			
Romania	2014	29,532			
Romania	2015	28,381			
Romania	2016	27,859			
Romania	2017	30,235			
Romania	2018	28,030			
Romania	2019	25,576			
Romania	2020	14,891	27,451	23,028	31,874
Romania	2021	15,727	27,451	23,028	31,874
UK	2012	19,222			
UK	2013	16,783			
UK	2014	17,747			
UK	2015	19,283			
UK	2016	23,875			
UK	2017	28,875			
UK	2018	31,276			
UK	2019	37,720			
UK	2020	36,374	44,164	38,716	49,612
UK	2021	34,510	50,608	38,427	62,789
Venezuela	2012	7,579			
Venezuela	2013	7,725			
Venezuela	2014	12,842			
Venezuela	2015	19,651			
Venezuela	2016	31,552			
Venezuela	2017	52,385			
Venezuela	2018	71,666			
Venezuela	2019	74,344			
Venezuela	2020	32,927	74,344	50,117	98,571
Venezuela	2021	27,951	74,344	40,082	108,606

Table S3. Observed immigration flows in Norway by most important countries of origin from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Denmark	2012	2,717			
Denmark	2013	3,350			
Denmark	2014	3,138			
Denmark	2015	2,461			
Denmark	2016	2,160			
Denmark	2017	2,235			
Denmark	2018	2,199			
Denmark	2019	2,127			
Denmark	2020	2,091	2,127	1,369	2,885
Denmark	2021	2,890	2,127	1,054	3,200
Eritrea	2012	1,643			
Eritrea	2013	1,834			
Eritrea	2014	1,995			
Eritrea	2015	2,703			
Eritrea	2016	1,980			
Eritrea	2017	1,180			
Eritrea	2018	707			
Eritrea	2019	280			
Eritrea	2020	190	280	-824	1,384
Eritrea	2021	221	280	-1,281	1,841
Lithuania	2012	6,322			
Lithuania	2013	5,315			
Lithuania	2014	4,299			
Lithuania	2015	3,109			
Lithuania	2016	2,434			
Lithuania	2017	2,636			
Lithuania	2018	2,715			
Lithuania	2019	2,436			
Lithuania	2020	1,738	2,436	916	3,956
Lithuania	2021	3,019	2,436	286	4,586
Philippines	2012	1,958			
Philippines	2013	2,045			
Philippines	2014	1,665			
Philippines	2015	1,671			
Philippines	2016	1,625			
Philippines	2017	1,468			
Philippines	2018	1,485			
Philippines	2019	1,424			
Philippines	2020	577	1,424	1,101	1,747
Philippines	2021	516	1,424	967	1,881
Poland	2012	10,798			
Poland	2013	9,937			
Poland	2014	9,559			
Poland	2015	7,764			
Poland	2016	5,823			
Poland	2017	4,971			
Poland	2018	4,740			
Poland	2019	4,927			
Poland	2020	3,784	4,927	2,699	7,155
Poland	2021	8,043	4,927	1,776	8,078

Continuation Table S3

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Spain	2012	1,990			
Spain	2013	2,314			
Spain	2014	2,084			
Spain	2015	1,768			
Spain	2016	1,492			
Spain	2017	1,378			
Spain	2018	1,305			
Spain	2019	1,436			
Spain	2020	1,298	1,436	977	1,895
Spain	2021	1,902	1,436	786	2,086
Sweden	2012	5,352			
Sweden	2013	5,392			
Sweden	2014	5,763			
Sweden	2015	4,188			
Sweden	2016	3,287			
Sweden	2017	3,012			
Sweden	2018	3,022			
Sweden	2019	2,933			
Sweden	2020	2,827	2,933	1,516	4,350
Sweden	2021	3,667	2,933	929	4,937
Syria	2012	466			
Syria	2013	1,069			
Syria	2014	1,622			
Syria	2015	2,600			
Syria	2016	7,935			
Syria	2017	4,079			
Syria	2018	2,075			
Syria	2019	560			
Syria	2020	460	2,551	-2,082	7,183
Syria	2021	655	2,551	-2,082	7,183
UK	2012	2,109			
UK	2013	2,027			
UK	2014	1,965			
UK	2015	1,656			
UK	2016	1,506			
UK	2017	1,604			
UK	2018	1,885			
UK	2019	2,005			
UK	2020	2,003	1,845	1,424	2,265
UK	2021	2,157	1,845	1,424	2,265
United States	2012	1,613			
United States	2013	1,504			
United States	2014	1,550			
United States	2015	1,423			
United States	2016	1,380			
United States	2017	1,339			
United States	2018	1,480			
United States	2019	1,645			
United States	2020	1,337	1,492	1,289	1,695
United States	2021	1,668	1,492	1,289	1,695

Table S4. Observed immigration flows in Italy by most important countries of origin from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Albania	2012	14,205			
Albania	2013	12,279			
Albania	2014	11,434			
Albania	2015	11,555			
Albania	2016	12,979			
Albania	2017	15,549			
Albania	2018	18,064			
Albania	2019	25,774			
Albania	2020	17,324	33,484	28,858	38,110
Albania	2021	23,178	41,194	30,849	51,539
Bangladesh	2012	10,014			
Bangladesh	2013	10,498			
Bangladesh	2014	12,768			
Bangladesh	2015	12,439			
Bangladesh	2016	10,769			
Bangladesh	2017	14,611			
Bangladesh	2018	13,434			
Bangladesh	2019	12,922			
Bangladesh	2020	7,802	12,182	9,185	15,178
Bangladesh	2021	15,188	12,182	9,185	15,178
Brazil	2012	7,094			
Brazil	2013	6,594			
Brazil	2014	6,977			
Brazil	2015	9,681			
Brazil	2016	15,103			
Brazil	2017	20,237			
Brazil	2018	23,908			
Brazil	2019	29,545			
Brazil	2020	10,669	35,182	31,563	38,801
Brazil	2021	10,087	40,819	32,727	48,911
China	2012	20,482			
China	2013	18,082			
China	2014	16,435			
China	2015	15,481			
China	2016	13,110			
China	2017	11,941			
China	2018	10,666			
China	2019	11,794			
China	2020	6,005	11,794	8,476	15,112
China	2021	7,151	11,794	7,101	16,487
India	2012	11,214			
India	2013	10,916			
India	2014	11,115			
India	2015	11,362			
India	2016	10,063			
India	2017	7,860			
India	2018	11,142			
India	2019	13,517			
India	2020	7,329	10,899	7,965	13,832
India	2021	11,952	10,899	7,965	13,832

Continuation Table S4

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Morocco	2012	19,624			
Morocco	2013	19,672			
Morocco	2014	17,698			
Morocco	2015	15,107			
Morocco	2016	14,791			
Morocco	2017	15,756			
Morocco	2018	17,144			
Morocco	2019	22,218			
Morocco	2020	12,668	17,751	12,890	22,612
Morocco	2021	16,308	17,751	12,890	22,612
Nigeria	2012	6,610			
Nigeria	2013	6,261			
Nigeria	2014	5,361			
Nigeria	2015	9,073			
Nigeria	2016	15,006			
Nigeria	2017	23,558			
Nigeria	2018	17,963			
Nigeria	2019	5,609			
Nigeria	2020	7,221	11,180	-1,632	23,992
Nigeria	2021	7,775	11,180	-1,632	23,992
Pakistan	2012	8,803			
Pakistan	2013	7,788			
Pakistan	2014	9,532			
Pakistan	2015	11,366			
Pakistan	2016	14,722			
Pakistan	2017	15,140			
Pakistan	2018	13,281			
Pakistan	2019	11,035			
Pakistan	2020	9,664	11,035	7,080	14,990
Pakistan	2021	14,848	11,035	5,442	16,628
Romania	2012	80,080			
Romania	2013	59,347			
Romania	2014	48,918			
Romania	2015	44,209			
Romania	2016	42,248			
Romania	2017	40,582			
Romania	2018	36,553			
Romania	2019	39,340			
Romania	2020	26,097	42,127	30,621	53,633
Romania	2021	27,044	44,914	19,187	70,641
Ukraine	2012	11,531			
Ukraine	2013	13,076			
Ukraine	2014	9,803			
Ukraine	2015	9,432			
Ukraine	2016	8,797			
Ukraine	2017	8,002			
Ukraine	2018	7,816			
Ukraine	2019	7,422			
Ukraine	2020	5,269	7,422	4,547	10,297
Ukraine	2021	9,371	7,422	3,356	11,488

Table S5. Observed immigration flows in the Netherlands by most important countries of origin from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Belgium	2012	7,982			
Belgium	2013	7,793			
Belgium	2014	8,060			
Belgium	2015	8,045			
Belgium	2016	8,658			
Belgium	2017	9,027			
Belgium	2018	9,032			
Belgium	2019	9,246			
Belgium	2020	8,935	9,246	8,630	9,862
Belgium	2021	8,504	9,246	8,374	10,118
China	2012	5,017			
China	2013	4,561			
China	2014	4,531			
China	2015	4,897			
China	2016	5,029			
China	2017	5,630			
China	2018	5,828			
China	2019	6,401			
China	2020	4,011	6,401	5,612	7,190
China	2021	5,383	6,401	5,285	7,517
Germany	2012	10,936			
Germany	2013	10,188			
Germany	2014	10,668			
Germany	2015	11,353			
Germany	2016	12,405			
Germany	2017	13,266			
Germany	2018	14,062			
Germany	2019	14,686			
Germany	2020	13,882	14,686	13,150	16,222
Germany	2021	14,642	14,686	12,513	16,859
India	2012	2,725			
India	2013	3,185			
India	2014	3,650			
India	2015	4,451			
India	2016	5,198			
India	2017	6,391			
India	2018	7,667			
India	2019	9,124			
India	2020	4,274	10,581	10,095	11,067
India	2021	7,576	12,038	10,951	13,125
Poland	2012	14,324			
Poland	2013	15,405			
Poland	2014	17,690			
Poland	2015	16,697			
Poland	2016	16,563			
Poland	2017	17,098			
Poland	2018	18,056			
Poland	2019	19,420			
Poland	2020	17,907	19,420	16,975	21,865
Poland	2021	18,942	19,420	15,963	22,877

Continuation Table S5

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Spain	2012	5,601			
Spain	2013	5,858			
Spain	2014	5,467			
Spain	2015	5,442			
Spain	2016	5,426			
Spain	2017	6,216			
Spain	2018	6,597			
Spain	2019	7,852			
Spain	2020	7,548	7,852	6,642	9,062
Spain	2021	8,903	7,852	6,140	9,564
Syria	2012	529			
Syria	2013	1,671			
Syria	2014	6,224			
Syria	2015	14,962			
Syria	2016	19,281			
Syria	2017	8,939			
Syria	2018	2,673			
Syria	2019	2,363			
Syria	2020	2,221	7,080	-5,746	19,906
Syria	2021	4,820	7,080	-5,746	19,906
Turkiye	2012	3,335			
Turkiye	2013	3,543			
Turkiye	2014	4,072			
Turkiye	2015	6,560			
Turkiye	2016	9,945			
Turkiye	2017	10,676			
Turkiye	2018	8,196			
Turkiye	2019	9,714			
Turkiye	2020	8,507	9,714	5,789	13,639
Turkiye	2021	13,057	9,714	4,163	15,265
UK	2012	5,886			
UK	2013	6,017			
UK	2014	6,406			
UK	2015	7,202			
UK	2016	8,574			
UK	2017	9,487			
UK	2018	10,443			
UK	2019	11,974			
UK	2020	10,473	13,505	12,646	14,364
UK	2021	6,866	15,036	13,115	16,957
United States	2012	4,628			
United States	2013	4,649			
United States	2014	5,006			
United States	2015	5,766			
United States	2016	5,755			
United States	2017	6,669			
United States	2018	7,200			
United States	2019	7,539			
United States	2020	6,251	7,539	6,487	8,591
United States	2021	6,254	7,539	6,051	9,027

Table S6. Observed immigration flows in Denmark by most important countries of origin from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Germany	2012	2,945			
Germany	2013	3,142			
Germany	2014	3,478			
Germany	2015	3,536			
Germany	2016	3,637			
Germany	2017	3,846			
Germany	2018	4,145			
Germany	2019	4,231			
Germany	2020	4,378	4,231	3,813	4,649
Germany	2021	5,212	4,231	3,640	4,822
Greenland	2012	2,032			
Greenland	2013	1,791			
Greenland	2014	1,842			
Greenland	2015	1,927			
Greenland	2016	1,851			
Greenland	2017	1,719			
Greenland	2018	1,876			
Greenland	2019	1,799			
Greenland	2020	1,575	1,855	1,677	2,032
Greenland	2021	1,716	1,855	1,677	2,032
Norway	2012	2,310			
Norway	2013	2,584			
Norway	2014	2,965			
Norway	2015	3,122			
Norway	2016	3,052			
Norway	2017	2,826			
Norway	2018	2,651			
Norway	2019	2,535			
Norway	2020	2,538	2,535	2,091	2,979
Norway	2021	2,495	2,535	1,907	3,163
Poland	2012	3,340			
Poland	2013	3,651			
Poland	2014	3,999			
Poland	2015	4,069			
Poland	2016	3,787			
Poland	2017	3,679			
Poland	2018	3,343			
Poland	2019	3,025			
Poland	2020	2,811	3,612	2,946	4,277
Poland	2021	4,182	3,612	2,946	4,277
Romania	2012	3,220			
Romania	2013	3,500			
Romania	2014	4,112			
Romania	2015	4,164			
Romania	2016	4,010			
Romania	2017	3,961			
Romania	2018	3,905			
Romania	2019	3,617			
Romania	2020	3,317	3,811	3,191	4,432
Romania	2021	5,201	3,811	3,191	4,432

Continuation Table S6

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Spain	2012	1,738			
Spain	2013	1,853			
Spain	2014	1,961			
Spain	2015	1,980			
Spain	2016	2,031			
Spain	2017	2,236			
Spain	2018	2,355			
Spain	2019	2,289			
Spain	2020	2,476	2,289	2,064	2,514
Spain	2021	2,803	2,289	1,971	2,607
Sweden	2012	3,822			
Sweden	2013	4,328			
Sweden	2014	3,897			
Sweden	2015	3,539			
Sweden	2016	3,623			
Sweden	2017	3,667			
Sweden	2018	3,380			
Sweden	2019	3,322			
Sweden	2020	3,480	3,322	2,706	3,938
Sweden	2021	3,462	3,322	2,450	4,194
Syria	2012	1,053			
Syria	2013	1,776			
Syria	2014	5,416			
Syria	2015	11,175			
Syria	2016	8,811			
Syria	2017	2,211			
Syria	2018	822			
Syria	2019	458			
Syria	2020	376	458	-7,031	7,947
Syria	2021	332	458	-10,133	11,049
UK	2012	2,823			
UK	2013	3,073			
UK	2014	3,120			
UK	2015	3,401			
UK	2016	3,788			
UK	2017	3,939			
UK	2018	3,803			
UK	2019	3,764			
UK	2020	3,950	3,764	3,326	4,202
UK	2021	2,693	3,764	3,144	4,384
United States	2012	2,600			
United States	2013	2,539			
United States	2014	2,809			
United States	2015	3,113			
United States	2016	3,266			
United States	2017	3,319			
United States	2018	3,225			
United States	2019	2,912			
United States	2020	2,954	2,912	2,497	3,327
United States	2021	2,463	2,912	2,324	3,500

Table S7. Observed immigration flows in Austria by most important countries of origin from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Afghanistan	2012	2,721			
Afghanistan	2013	2,571			
Afghanistan	2014	2,420			
Afghanistan	2015	17,632			
Afghanistan	2016	10,110			
Afghanistan	2017	1,541			
Afghanistan	2018	828			
Afghanistan	2019	980			
Afghanistan	2020	1,037	4,850	-6,303	16,003
Afghanistan	2021	1,717	4,850	-6,303	16,003
Bulgaria	2012	2,209			
Bulgaria	2013	2,989			
Bulgaria	2014	3,768			
Bulgaria	2015	3,743			
Bulgaria	2016	3,454			
Bulgaria	2017	3,406			
Bulgaria	2018	3,525			
Bulgaria	2019	3,897			
Bulgaria	2020	3,087	3,897	2,985	4,809
Bulgaria	2021	3,103	3,897	2,608	5,186
Germany	2012	15,175			
Germany	2013	14,926			
Germany	2014	14,676			
Germany	2015	15,855			
Germany	2016	15,670			
Germany	2017	16,008			
Germany	2018	16,855			
Germany	2020	20,161	18,328	16,716	19,940
Germany	2021	20,609	18,328	16,048	20,608
Germany	2021	20,609			
Hungary	2012	8,668			
Hungary	2013	9,408			
Hungary	2014	10,148			
Hungary	2015	10,805			
Hungary	2016	9,817			
Hungary	2017	9,374			
Hungary	2018	8,791			
Hungary	2019	8,554			
Hungary	2020	7,386	9,446	7,977	10,914
Hungary	2021	6,876	9,446	7,977	10,914
Italy	2012	2,605			
Italy	2013	3,059			
Italy	2014	3,512			
Italy	2015	3,972			
Italy	2016	3,606			
Italy	2017	3,589			
Italy	2018	3,391			
Italy	2019	3,616			
Italy	2020	3,515	3,616	2,920	4,312
Italy	2021	3,200	3,616	2,632	4,600

Continuation Table S7

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Poland	2012	4,666			
Poland	2013	4,766			
Poland	2014	4,866			
Poland	2015	4,657			
Poland	2016	4,115			
Poland	2017	3,902			
Poland	2018	3,535			
Poland	2019	3,493			
Poland	2020	3,348	3,493	2,938	4,048
Poland	2021	3,114	3,493	2,708	4,278
Romania	2012	7,800			
Romania	2013	10,466			
Romania	2014	13,132			
Romania	2015	12,274			
Romania	2016	11,742			
Romania	2017	12,499			
Romania	2018	13,403			
Romania	2019	14,066			
Romania	2020	11,813	14,066	10,943	17,189
Romania	2021	11,858	14,066	9,650	18,482
Serbia	2012	3,799			
Serbia	2013	4,234			
Serbia	2014	4,668			
Serbia	2015	5,644			
Serbia	2016	5,507			
Serbia	2017	5,254			
Serbia	2018	4,903			
Serbia	2019	4,783			
Serbia	2020	3,743	4,783	3,842	5,724
Serbia	2021	3,873	4,783	3,452	6,114
Slovakia	2012	4,018			
Slovakia	2013	4,306			
Slovakia	2014	4,593			
Slovakia	2015	4,715			
Slovakia	2016	4,322			
Slovakia	2017	3,708			
Slovakia	2018	3,513			
Slovakia	2019	3,351			
Slovakia	2020	3,170	3,351	2,685	4,017
Slovakia	2021	3,053	3,351	2,409	4,293
Syria	2012	739			
Syria	2013	3,356			
Syria	2014	5,973			
Syria	2015	22,137			
Syria	2016	8,378			
Syria	2017	5,942			
Syria	2018	1,865			
Syria	2019	1,359			
Syria	2020	3,416	6,219	-6,800	19,238
Syria	2021	12,818	6,219	-6,800	19,238

Table S8. Observed immigration flows in Finland by most important countries of origin from 2012 to 2021 and forecasted flows between 2020 and 2021

Country	Year	Observed	Forecasting	Lower CI	Upper CI
China	2012	906			
China	2013	962			
China	2014	884			
China	2015	859			
China	2016	880			
China	2017	817			
China	2018	905			
China	2019	1,042			
China	2020	951	907	779	1,035
China	2021	1,234	907	779	1,035
Estonia	2012	6,422			
Estonia	2013	6,285			
Estonia	2014	5,071			
Estonia	2015	3,684			
Estonia	2016	2,933			
Estonia	2017	2,430			
Estonia	2018	2,365			
Estonia	2019	2,003			
Estonia	2020	1,967	2,003	423	3,583
Estonia	2021	2,854	2,003	-231	4,237
Germany	2012	808			
Germany	2013	799			
Germany	2014	897			
Germany	2015	764			
Germany	2016	793			
Germany	2017	795			
Germany	2018	929			
Germany	2019	988			
Germany	2020	1,185	988	820	1,156
Germany	2021	1,238	988	750	1,226
India	2012	558			
India	2013	679			
India	2014	819			
India	2015	764			
India	2016	643			
India	2017	739			
India	2018	936			
India	2019	1,302			
India	2020	887	1,302	936	1,668
India	2021	1,228	1,302	785	1,819
Iraq	2012	528			
Iraq	2013	869			
Iraq	2014	758			
Iraq	2015	686			
Iraq	2016	3,142			
Iraq	2017	2,438			
Iraq	2018	1,743			
Iraq	2019	1,206			
Iraq	2020	1,173	1,421	-343	3,186
Iraq	2021	963	1,421	-343	3,186

Continuation Table S8

Country	Year	Observed	Forecasting	Lower CI	Upper CI
Russia	2012	3,096			
Russia	2013	2,901			
Russia	2014	2,467			
Russia	2015	2,155			
Russia	2016	2,640			
Russia	2017	1,811			
Russia	2018	1,781			
Russia	2019	2,348			
Russia	2020	2,457	2,348	1,401	3,295
Russia	2021	2,724	2,348	1,009	3,687
Spain	2012	912			
Spain	2013	1,151			
Spain	2014	1,031			
Spain	2015	744			
Spain	2016	720			
Spain	2017	703			
Spain	2018	911			
Spain	2019	930			
Spain	2020	1,124	888	591	1,184
Spain	2021	1,020	888	591	1,184
Sweden	2012	2,793			
Sweden	2013	2,681			
Sweden	2014	2,694			
Sweden	2015	2,448			
Sweden	2016	2,610			
Sweden	2017	2,914			
Sweden	2018	2,810			
Sweden	2019	2,764			
Sweden	2020	2,987	2,714	2,449	2,980
Sweden	2021	2,714	2,714	2,449	2,980
UK	2012	1,076			
UK	2013	1,059			
UK	2014	1,100			
UK	2015	951			
UK	2016	1,085			
UK	2017	1,041			
UK	2018	1,263			
UK	2019	1,399			
UK	2020	1,586	1,399	1,146	1,652
UK	2021	1,234	1,399	1,041	1,757
United States	2012	861			
United States	2013	895			
United States	2014	903			
United States	2015	803			
United States	2016	874			
United States	2017	946			
United States	2018	1,030			
United States	2019	1,061			
United States	2020	1,073	1,061	931	1,191
United States	2021	1,049	1,061	878	1,244