

Beyond immigration: Moving from Western to Global Indexes of Migration Policy

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Abstract

Over the last twenty years, researchers have undertaken systematic comparison of migration policy by creating sets of policy indicators/indexes at the national level. These indicators are designed to analyse the differences and trends in migration policy and then be used by the research community to assess the determinants and effects of policy. This article aims to assess the comprehensiveness of current migration policy indicators by analysing their thematic, geographical and temporal coverage as a way of understanding how migration policy has been conceptualised and measured in quantitative migration research. Our analysis of the 67 existing indexes shows that they disproportionately focus on immigration policy, mainly admission and citizenship, in OECD and particularly Western European countries, with limited opportunities for longitudinal analysis of policy change. These findings reveal that migration policy has been largely conceptualised in indexes as a contemporary phenomenon, concerning mainly Western countries that have become major destination countries.

Policy Implications

- Indicators on migration policy allow policy makers to understand the state of their policy and compare their country with others. Indicators are also useful to monitor countries' progress on the Sustainable Development Goals (SDGs).
- Comparability has been partially hampered by focus on Western countries. To allow for comparisons between different countries (e.g. developing and developed countries), researchers should widen the geographical scope of existing indexes.
- Researchers creating new sets of indicators on migration policy should focus on understudied topics (e.g. emigration and governance), to increase the information available to policy makers.
- The temporal coverage of indexes should be expanded to employ a more historical and longitudinal perspective.
- Researchers should make their data available in open access to allow other researchers to build on existing projects, avoid risk of duplication and produce more solid findings.
- Researchers should also co-operate to create repositories of data and sources for hard-to-gather information (e.g. on migration policy, on migration trends and integration outcomes, and on best practices on migration policies). This would allow researchers to provide policy makers with clear results and analyses on the addressed phenomena.

This article analyses the growing field of migration policy indexes, namely the systematic comparison of migration laws and policies by means of sets of indicators. Over the last twenty years, researchers have undertaken systematic comparison of migration policy by creating indicators and indexes. These indicators and indexes have been used to analyse differences and trends in migration policy (de Haas et al., 2015, 2018; Helbling and Kalkum, 2018) and to assess the determinants and effects of policy (Czaika and de Haas, 2013; Helbing and Leblang, 2019; Solano, 2021).

The proliferation of projects has resulted in dozens of indicator datasets that measure the degree of restrictiveness of these policies, the extent of equal treatment between migrants and non-migrants and other dimensions of policy regimes and models (Scipioni and Urso, 2018). From these datasets, researchers have often created aggregations and indexes to provide a summary score – a snapshot of the migration policy framework in a given country at a specific period of time.

Following the proliferation of these indexes, a few scholars have made comparisons between existing indexes (among others, see: Bjerre et al., 2015; Gest et al., 2014; Goodman, 2015, 2019). They have usually focused on a limited number of indexes (generally, around fifteen) and only one or few policy areas (e.g. admission policies). These stocktaking exercises have not considered the broader overall trends and gaps in the field, and only a small number of them has analysed the conceptualisation of migration policy in these indexes.

To close these gaps and advance the field, this article aims to take stock of previous undertakings by focusing on how migration policy has been conceptualised and measured. The article aims at answering the following research question: *how do existing indexes conceptualise and measure migration policy?* Indexes' conceptualisation of migration policy is assessed in three ways: their thematic, geographical and temporal scope. The extent to which migration policy as a multidimensional concept is considered and which

areas and countries are considered ultimately reflects on the conceptualisation of migration itself.

Researchers' conceptual assumptions about migration policy determine the ways in which indexes are built and this ultimately affects the results produced by the indexes (Goodman, 2015). Conceptually similar indexes produce sometimes different results, due to the selection of different sub-topics and indicators. Therefore, literature underlines the importance of conceptual clarity in the definition and operationalisation of the phenomena that the index aims to measure (Bjerre et al., 2019; Goodman, 2015).

The ways in which migration policy is conceptualised is not only an academic and methodological issue, but also has strong societal relevance. The findings produced by those indexes reach a wide audience (the general public, policy makers, researchers) and influence the debate on the topic. The knowledge produced by indexes affects the debate and the policy-making process, as demonstrated by the Migrant Integration Policy Index (MIPEX, Solano and Huddleston, 2020), which has been extensively used by international organisations and policy makers.¹ In addition, the way in which migration policy is addressed and presented to a wider audience through indexes can influence the audience's wider perception and framing of the topic. This conceptualisation of migration policy through indexes influences the type of knowledge and debates generated on a given topic (Bjerre et al., 2019; Geddes and Scholten, 2015; Scholten and Timmermans, 2010).

For this reason, researchers should reflect on their conceptualisation of migration in indexes on migration policy and the characteristics of those indexes. To this end, this article provides a systematic state-of-the-art overview of the analysed indexes based on their thematic, geographical and temporal scope as well as the links between these three dimensions of indexing. This article contributes to the field of migration policy indicators in three ways. First, the article's systematic analysis provides insight into overall trends and the remaining gaps in the field. Second, the analysis expands beyond previous comparisons with a comprehensive literature review of all published indexes of migration policy, irrespective of their specific thematic focus and policy areas covered. Third, this analysis has a wider temporal scope than previous reviews by covering the entire period up to 2019. As a result, this article has the largest available sample size of 67 indexes of migration policy. To our knowledge, our review includes all the existing indexes on migration policy at national level.

The findings from this analysis allow for further reflection on gaps and potential biases in the field and how researchers can close those gaps in future research.

1. Migration policy

The definition of migration policy has been characterised by a certain degree of vagueness. Literature underlines that the definition of migration policy is still not completely clear, as well as the policy areas (e.g. immigration policies) and sub-

areas (e.g. nationality acquisition policies) that are included (Bjerre et al., 2015; Scholten, 2020).

From a national policy making perspective, a clear distinction is usually made between policies that address immigrants (and their descendants) and those that address emigrants (and their descendants); whereas every immigrant to a country is an emigrant of another (Pedroza, 2020).

Beside immigration policies and emigration policies, a third area of migration policy is migration governance.

Governance includes both the overall management of a country's economic and social resources and the decision-making and implementation process (Pasetti, 2019). Migration governance concerns the decision-making, implementation and management of a country's migration and migrant integration policies. It goes beyond the formal regulations to involve the political process and strategy behind them.

Immigration policies refer to 'governments' [...] laws, regulations, decisions or orders regarding the selection, admission, settlement and deportation of foreign citizens residing in the country' (Bjerre et al., 2015, p. 559). This definition makes it clear that immigration policy is a multidimensional concept, which includes different dimensions and areas of interventions. Hammar (1990) distinguishes between three steps: *entry*, *settlement* and *full membership*.² These reflect the two modes of 'social closure' of nation-states, one before entry to the country and the other within its territory. By empirically applying this approach, Rayp et al. (2017) distinguish between entry, integration and stay policies. Entry refers to admission policies, which regulate the entry of migrants in the country. Specific areas of admission include labour migration, family reunion, asylum and education (Gest et al., 2014). Integration policies refer to the wide set of policies that influence migrants' settlement, such as labour market, political participation, anti-discrimination and health (Huddleston et al., 2015). Stay refers to the acquisition of equal rights to stay and participate in the life of the country of immigration, which are normally acquired through citizenship or long-term/permanent residence. Entry and stay policies are also partly linked to exit rules, that is, withdrawal and loss of status, voluntary return and expulsion for irregular migrants.

Emigration policies consider a country's policies as a country of origin rather than as a country of destination. These policies are therefore focused on the country's emigrants, their descendants and more generally the country diaspora. Countries of origin have developed policies and structures to regulate their economic, political or social links with their emigrants. These policies 'vary in scope and nature between different countries and include measures as diverse as dual citizenship policies, programs to stimulate remittances, the right to vote in the home country from abroad, and the creation of government agencies to administer emigrant issues' (Pedroza and Palop-García, 2017, p. 165). Emigration and diaspora policies may aim to tap into their emigrants' resources (financial, socio-economic, political), embrace their citizenship in terms of rights protection and political representation and govern their often little-regulated transnational links with the country (Gamlen, 2014).

Building on the literature's conceptualisation of migration policy this review will consider to what extent migration policy indicators cover all areas of migration policy: immigration policy, emigration policy and migration governance. Furthermore, within the area of immigration policy, we include the following sub-areas: admission policies; integration policies; (long-term) residence and citizenship acquisition policies; expulsion and return policies. The definition of the different sub-areas is not set in stone in the literature and this question of scope is treated differently by various indexes. However, researchers reviewing these indexes argue that these areas are relatively exhaustive as they cover the entire immigration path (Scipioni and Urso, 2018).

2. Methodology

This article is based on research conducted in the frame of the EU-funded Horizon2020 project *CrossMigration* (2018–2020) and then finalised in the framework of another EU-funded Horizon2020 project, *HumMingBird* (2020–2024). The research consisted of a systematic literature review using the following methods: (1) collection of indexes based on previous literature review articles and related literature; ; and (2) literature search in Google, Google Scholar and Scopus using several keywords (e.g. migration policy index, migration policy indicators, migration policies). We decided to search for literature in Google and Google Scholar as well, to gather also non-academic literature, as many indexes have been developed by non-academic researchers.

Through this differentiated approach, we identified 67 sets of indicators/indexes (see list of indexes in the Appendix S1). To the best of our knowledge, all the existing indexes on migration policy are included in our review. For the sake of comparability, we decided to focus only on set of indicators/indexes on national policies for international immigrants and emigrants, although a few indexes have emerged on internal migrants and/or local integration policies (e.g. Aggarwal et al., 2020; Manatschal, 2011). Since this article is the first to analyse those topics for such a number of indexes, it is exploratory in nature.

Our review analysed and classified the indexes, according to the following dimensions of indexing: thematic coverage, temporal coverage, and geographical coverage. Researchers reviewing these indexes tend to agree that these are the most relevant dimensions when it comes to the conceptualisation of migration policy (Bjerre et al., 2015; Gest et al., 2014; Goodman, 2015; Solano, 2021).

This classification led to the creation of an index-level dataset, which includes information of the 67 indexes analysed. This paper's analysis also required the construction of a second country-level dataset ($N = 198$) including relevant background information on the countries covered, ranging from the number of indexes that cover the country to the continent they belong to, from their degree of development to migration and population trends. All variables not related to the indexes drew on information from the United Nations. We created the country-level dataset to be able to analyse in detail the indexes' geographical coverage. This

dataset allowed us to understand the characteristics of the countries that are more frequently analysed by the index (e.g. European countries, developed countries).

These two datasets were used to perform descriptive, bivariate and multivariate analyses in order to assess indexes' conceptualisation of migration policy in terms of their thematic, geographical and temporal coverage.

We first examine the thematic coverage. Descriptive results are displayed to illustrate the areas and topics that are most frequently covered by indexes, while we performed correlation analyses to ascertain whether a certain policy area is often analysed together with another (e.g. governance and emigration policies). This sheds light on the co-occurrence of certain areas and on the conceptual associations that researchers make when creating the index. To do so, we employed the Spearman's rho, a non-parametric version of the Pearson's correlation used to measure the strength and direction of association between two variables. The correlation analyses are based on a list of sub-areas that are fixed. However, this list of sub-areas is not set in stone in the literature, and similar topics have been somehow treated differently by various indexes. For this reason, to go beyond this a priori list of topics, we explored the underlying facets of index thematic coverage. We performed a factor analysis based on the sub-areas covered (e.g. labour migration, integration policies, nationality acquisition policies). This analysis has been done in Stata.

Second, we analysed the geographical distribution of the indexes by using both the index-level and the country-level datasets. To understand the similarity between countries covered by one index we used three measures: the number of countries covered, the number of continents covered (with at least one country included in the analysis) and a diversity index based on the continent of the covered countries. For the latter, we employed an adjusted version of the Simpson's Index of Diversity ($1 - D$), which is a measure of diversity: the lower its value is, the lower in diversity the policy index is. For example, if an index covers ten European countries only, the value of the index is equal to zero. The higher the value is, the higher in diversity the policy index is. The highest possible value is $1 - 1/S$, where S is the number of groups to which a case can belong. In the case of the continents, the possible maximum value is 0.8 ($1 - 1/5$). Therefore, we rescaled the index based on its minimum and maximum to have a range of value between 0 and 1 and make its interpretation easier. Compared to the number of continents and countries, the diversity index has the advantage of combining information about the number of countries and continents. This measure refers to the number of countries covered for each continent out of the total number of countries covered by the index. For these reasons, we chose this measure for the bivariate analyses.

Furthermore, we ran a regression analysis to understand the possible underlying reasons for country selection and control for the potentially confounding effect of different factors (e.g. number of migrants in the country).

This analysis has been conducted using the country-level dataset, which includes 198 observations (namely countries).

We used as the dependent variable how many times a country was included in the indexes. As our dependent variable was a count variable, we employed a negative binomial regression model. Results showed overdispersion, indicating that Poisson regression, which is normally used for count variables, was not the most appropriate modelling strategy for our dependent variable. Our model included the following independent variables: Population (year of reference: 2010); Number of migrants (year of reference: 2010); EU-15 country (0 No – 1 Yes); OECD country (0 No – 1 Yes); Continent (reference: Europe); Income group (1- Low, 2 - Lower middle, 3- Upper middle, 4 High).³

Third, we analysed the temporal coverage by means of descriptive analysis. We also run a Wilcoxon rank-sum test, a non-parametric version of the t-test, to understand whether indexes analysing years before 1970 (so using a more historical perspective) cover a higher or lower number of years. The analysis of the temporal coverage contributes to answering the question of how existing indexes conceptualise and measure migration and migration policy, for example, as a contemporary phenomenon only.

Finally, we explore the link between thematic, geographical and temporal coverage, in order to understand the conceptualisation of migration and migration policy in its entirety (and not only referring to the topics, countries and years covered). We used Spearman's correlation measure and the Wilcoxon rank-sum test.

3. Findings

In this section, we address the indexes' thematic, geographical and temporal scope, with the aim of analysing the conceptualisation of migration policy operating behind these indexes.

3.1. Thematic coverage

In the theory section, we identified three dimensions of migration policy: *immigration*, *emigration* and *governance*. Our literature review demonstrates a clear tendency for indexes to address immigration policy and overlook the other two dimensions. Almost every index addresses immigration policy, while only a minority focuses on emigration policy and governance (Table 1).

Immigration has been widely analysed in terms of different policies and perspectives, from admission to integration

and nationality acquisition (see theory section and below). For example, DEMIG (de Haas et al., 2015), which tracks migration policy changes in 45 countries between 1945 and 2014, considers the entire spectrum of immigration policies. The Migration Policy Index (Rayp et al., 2017) combines data from other indexes to develop a comprehensive measure of immigration policies.

Only 13 indexes address emigration policies. One of the most comprehensive sets of indicators in terms of topics covered and indicators is the Emigrant Policies Index (EMIX, Pedroza and Palop-García, 2017 and this issue). EMIX covers 22 Latin American and Caribbean countries and focuses on a wide range of policy areas related to emigrants, such as nationality acquisition, electoral rights, institutional consultation, tax-related and economic policies, and cultural policies.

Similarly, governance is addressed by 15 of the 67 indexes analysed. Two sets of indicators have addressed in depth governance regulating international migration: the Migration Governance Index (MGI) from the International Organization for Migration (IOM), and the Inquiry among Governments on Population and Development from the United Nations (UN). Together with other aspects not strictly related to governance (e.g. integration policies), MGI focuses on the presence of an institutional framework and structure, a migration strategy, a certain degree of institutional transparency and coherence, and a process of gathering of data and information. The Inquiry among Governments on Population and Development gathers information on migration governance, by addressing government strategies and a dedicated ministry/department/unit on migration and integration as well as monitoring mechanisms on these topics.

A correlation analysis reveals that indexes addressing emigration policies are more likely to include governance (Spearman's $\rho = 0.28$, $p < 0.05$) and less likely to consider immigration policy (Spearman's $\rho = -0.44$, $p = 0.001$). This shows that, when indexes go beyond the immigration area, they tend to adopt a more comprehensive approach including both emigration policy and governance. Out of the thirteen indexes addressing emigration, only three indexes do not include immigration policies. There is no significant link between the inclusion of immigration policies and governance. Only one index addressing governance does not include immigration as well.

Given indexes' predominant focus on immigration policy, we investigate the specific areas and sub-areas measured as part of immigration policy. On average, indexes cover two out of the four immigration areas. However, more than 40 per cent of the indexes focus on one area only (27/64). Furthermore, indexes cover three out of the fourteen sub-areas (Table 2).

Given the focus on measuring specific immigration policies, one could expect wide coverage of the different areas and policies on immigration. This is not confirmed by the empirical data.

Immigration policy indicators have maintained a disproportionate focus on several areas and sub-areas (see Tables 2 and 3). Admission and residence/citizenship policies have been widely covered; related sub-areas are among

Table 1. Frequency of migration macro-dimensions

Macro-topic	Frequency
Immigration	64
Emigration	13
Governance	15

Note: The frequency represents the number of times the immigration area has been covered by the indexes (N = 67).

Table 2. Frequency of immigration areas

Areas	Frequency
Admission	36
Integration	29
Residence/citizenship	49
Expulsion and return	13

Notes: The frequency represents the number of times the immigration area has been covered by the indexes (N = 64). The three indexes only on emigration have not been considered.

the most frequently addressed, that is, nationality acquisition, admission of economic/labour migrants, residence permits and family reunification. Expulsion and return policies and, to a lesser extent, integration policies have been less frequently analysed. The fact that indexes cover a small number of areas and sub-areas suggests that indexes are often created with the aim of capturing only a specific aspect of immigration policy and rarely capture a comprehensive array of sub-areas (Gest et al., 2014).

Overall, the analysis of migration policies is primarily focused on legal and procedural standards, namely entry (admission) and stay (residence/citizenship), while the policy framework (e.g. integration policies) is less frequently considered. Furthermore, when analysed, integration is mainly – but not exclusively – considered in terms of employment.

The list of sub-areas displayed in Table 3 is not settled among scholars, and similar topics are somehow treated differently by various indexes. For this reason, we now go beyond this a priori definition of topics and explore the underlying dimensions behind the conceptualisation of

Table 3. Frequency of immigration sub-areas

Areas	Frequency
Economic/labour migration (admission)	27
Education purpose/student migration (admission)	8
Family reunification	28
Asylum and humanitarian protection	17
Education (integration)	15
Labour market integration	23
Social Inclusion (in general)	17
Political participation	18
Health	16
Antidiscrimination	13
Citizenship	39
Residence permits	27
Return	7
Irregular migration/Expulsion	15

Notes: The frequency represents the number of times the immigration area has been covered by the indexes (N = 61). The three indexes only on emigration have not been considered. We also left out from the analysis of sub-areas, DEMIG VISA, DIIG and Vikhrov's visa index, as they do not cover any specific sub-areas.

indexes and indicators. To understand the underlying dimensions, we ran a factor analysis including all the immigration sub-areas (Table 4). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = 0.74. Bartlett's test of sphericity ($\chi^2(91) = 422.397$, $p = 0.000$) showed that correlation structure was adequate for factor analyses.

The results show two different dimensions underpinning indexes' thematic coverage. The first factor refers to the control of migration (admission, return and expulsion), while the second factor relates to integration of migrants, in line with the two main dimensions already identified by Hammar (1990), immigration (control) policy and immigrant (integration) policy.

The factor analysis shows three other interesting results. First, 'asylum and humanitarian protection' is linked to the control dimension. This suggests that this topic has been conceived of mainly as a control issue. Indeed, indexes covering this topic mostly focus on admission policies. A notable exception is NIEM (Conte and Pasetti, this issue). This set of indicators compares the laws and policies for the integration of refugees and beneficiaries of subsidiary protection in

Table 4. Factor analysis^a

Items	Factors	
	1 <i>Integration</i>	2 <i>Control</i>
Economic/labour migration (admission)	−0.29	0.94
Education purpose/student migration (admission)	−0.24	0.85
Family reunification	0.31	0.75
Asylum and humanitarian protection	−0.01	0.77
Education (integration)	0.96	−0.03
Labour market integration	0.83	0.25
Social Inclusion (in general)	0.80	0.02
Political participation	0.98	−0.20
Health	0.85	0.18
Antidiscrimination	0.86	−0.06
Citizenship	0.44	−0.13
Residence permits	0.33	0.37
Return	0.20	0.80
Irregular migration/Expulsion	0.20	0.69

Notes: N = 61. Extraction method; principal component factors; Rotation method: Promax with Kaiser normalisation. Loadings larger than 0.30 are in bold.

^aGiven that variables were dichotomous (does the index cover this sub-areas?), as suggested by literature (Olsson, 1979), we first produced a matrix of tetrachoric correlations (not reported here) and then we used that matrix as the input for the factor analysis. We also run a model directly using the dichotomous variables, and the results were the same. The only difference was that in the other models family reunification was slightly more correlated to the integration factor (around 0.4), while its correlation to the control factor remained stable. As rotation method, we employed Promax (non-orthogonal, oblique) not the default varimax (orthogonal), due to the high correlations between the two factors (0.62). However, the results on the varimax rotation were the same.

15 European countries. Similarly, Blair et al. (2020) analysed both admission and integration policies for refugee policies. Second, family reunification is correlated to both factors, although primarily to control. Indexes have treated it in terms of both admission and integration, as family reunification can be seen as a right of someone already settled or as an immigration channel for the family. Therefore, it concerns both entry/control and integration, depending on the view adopted. On the one hand, many indexes focusing on admission policy consider family reunification as one of the possible entry reasons. For example, IMPALA (Beine et al., 2016) measures immigration policy by mapping tracks of entry associated with various reasons, including family reunification. On the other hand, indexes on integration policies – such as MIPEX – include family reunification.

Third, nationality acquisition (citizenship) strongly correlates with integration factors, which suggests that it has been considered more from the integration standpoint. This is in line with the literature on citizenship, which has considered the acquisition of citizenship a part and a key step in the integration process in a destination society (Goodman, 2015; Shachar et al., 2017).

3.2. Geographical coverage

The analysis of the geographical coverage of the indexes shows that indexes cover, on average, 25 countries spread over four continents.⁴ Existing indexes widely vary in the number of countries covered, from three to 200+, however most frequently cover between 11 and 20 countries (20/67).

Almost one third of the indexes (21/67) focus on only one continent, normally Europe (20/21). Despite the fact that indexes have a moderate degree of diversity – the average value of the Simpson's index of diversity is 0.46, the analysis of the geographical coverage of the indexes reveals a tendency to include Western/developed countries, that is, OECD and Western European countries (EU-15). All former 28 EU countries (EU-27 and UK) and 36 OECD countries are included in the 50 most covered countries. The first ten countries (see Table 5) seem to reflect the immigration trends, as these are among the oldest (European) countries of immigration (Germany, UK, France, the Netherlands) and the largest new destination countries (Italy and Spain). However, this list further illustrates the geographical bias towards Europe, as other relevant traditional destination countries (e.g. Australia, Canada and US) are not in the top ten.

Europe dominates the scene (Table 6): European countries have been covered 1285 times, while America, which is the second most frequently covered continent, is mentioned only 465 times. All 10 most-covered countries are in Europe. On average, European countries make up 75 per cent of the countries covered by each index. Ninety-seven per cent of the indexes cover at least one European country, while the percentage drops to 67 per cent for America and is equal to or less than 60 per cent for other countries.

Table 5. Countries in the first 20 position – number of indexes covering the country (N = 67)

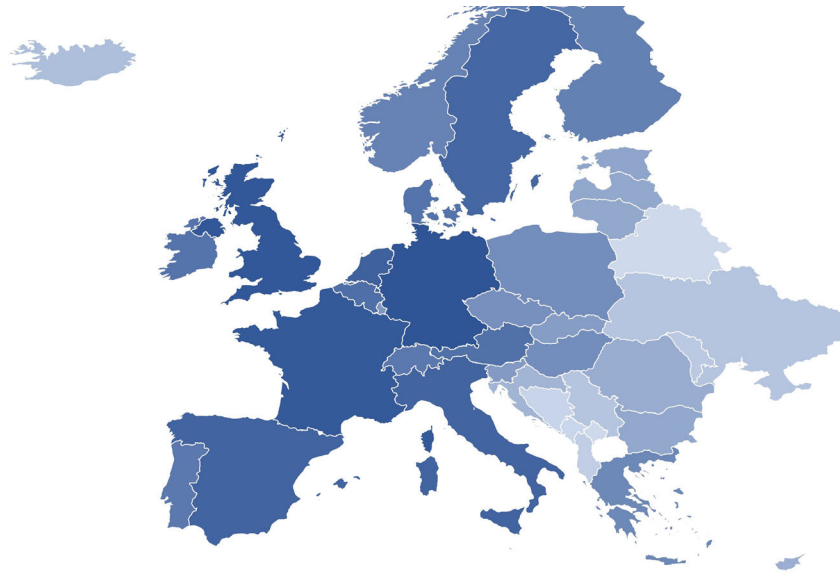
Rank	Country	n	Rank	Country	n
1	Germany	57	12	Portugal	43
2	United Kingdom	56		Switzerland	43
3	France	55	13	Finland	40
4	The Netherlands	52	14	United States	39
5	Italy	51		Australia	39
	Spain	51		Norway	39
7	Sweden	50	17	Canada	37
8	Belgium	47		Greece	37
9	Austria	46	19	Hungary	35
10	Denmark	45		Poland	35
	Ireland	45			

Table 6. Continents

Continent	Number of countries in the 50 most covered (N = 52)		Number of times a country from the continent is covered		Number of times that at least a country from the continent is covered (N=67)	
	n	%	absolute value	% (n/ maximum number of possible times)	n	%
Africa	2	4%	439	12%	20	30%
America	7	13%	465	14%	45	67%
Asia	6	12%	454	14%	37	55%
Europe	35	67%	1285	45%	65	97%
Oceania	2	4%	167	13%	41	61%

In comparison with Europe, in other continents the focus is limited to a few, often developed, countries (Table S1 in the Appendix S2). In Asia and America, the three most frequently analysed countries account for approximately 20 per cent of the times that a country of their continent has been covered, with this figure standing at 47 per cent in Oceania.⁵ The only exception to this trend is Africa. There the coverage is more scattered, as the three most frequently covered countries represent only 9 per cent of the total number of times that an African country has been covered.

The focus on Western/developed countries still holds within Europe, with the 10 most-covered countries being in the EU-15 (see Figure 1).

Figure 1. Most covered countries in Europe

Note: The darker the shade is, the higher the number of indexes covering the country is.

To understand the possible underlying reasons for country selection and control for the potentially confounding effects of different factors (see methodology for a description of the independent variables), we ran a negative binomial regression (Table 7). Indeed, some Western countries may have been included more frequently because these

countries possess larger international immigrant populations than other countries, although there may also be a preference per se for comparison of these countries.

The results confirm that while holding all other variables in the model constant (e.g. the population and the number of migrants), EU-15 and OECD countries are expected to be covered by more indexes. Compared to non-EU-15 and non-OECD countries, EU-15 countries and OECD countries have a rate 1.33 and 2.71 (respectively) times higher in the frequency with which indexes cover the country. The same holds true for European countries in comparison with all other continents. This confirms that there is a preference for inclusion of Western countries (EU-15 and OECD countries). Furthermore, countries with larger overall populations and larger migrant populations are expected to be included by a higher number of indexes.

Table 7. Negative binomial regression. DV: number of times that a country has been covered by indexes⁷

Independent variables	B	SE	IRR
Population (standardised)	0.08	0.02	1.09***
Number of migrants (standardised)	0.06	0.02	1.06***
Developed country	0.04	0.04	1.04
OECD country	1.00	0.08	2.71***
EU15 country	0.29	0.09	1.33***
African country (reference: European country)	-0.37	0.11	0.69***
American country (reference: European country)	-0.42	0.09	0.66***
Asian country (reference: European country)	-0.40	0.09	0.67***
Oceanian country (reference: European country)	-0.48	0.12	0.62***
Constant	2.38	0.14	10.79***
$1/\alpha$	-4.15	0.56	
α	0.02	0.01	
LR	359.65***		
N	198		
R2	0.257		

*Notes: $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; IRR refers to the incidence rate ratios for the negative binomial regression model. The IRR score is the estimated rate ratio for a one unit increase in the independent variable score, given the other variables are held constant in the model.

3.3. Temporal coverage

A third relevant characteristic of the indexes is their temporal coverage, which is key for comparison over time. Temporal coverage is important to understand whether migration policies have been analysed with an historical perspective, or with a more contemporary one (Scipioni and Urso, 2018).

The temporal coverage of existing indexes is limited; most indexes focus on a small number of years. The most common number of years covered is one year (18/59), and almost half of the countries (42 per cent) cover fewer than five years – although the average is 11 years. This renders longitudinal perspective rather weak. Indexes frequently analyse a small number of years or focus on a few consecutive years, even though policies are rather constant within short time frames (Huddleston et al., 2015).

Several indexes employ a longitudinal approach by encompassing many years, such as the following indexes: CITRIX (Schmid, this issue), 1980–2014; Commitment to Development Index (CGDEV, 2020), 2003–2019; IMPIC (Helbling et al., 2017), 1980–2018; Multiculturalism Policy Index (Banting and Kymlicka, 2013), 1980–2010; MIPEX (Huddleston et al., 2015; Solano and Huddleston, 2020), 2007–2019.⁶

The time frame most covered is 2000–2009, 2008 being the most frequently analysed year. The most recent years are covered to a lesser extent (see Figure 2).

Furthermore, as indexes have been developed mainly by sociologists and political scientists, it is unsurprising that migration policy has been mainly analysed as a contemporary phenomenon. We consider an index to have a historical perspective when it covers the period before the 1970s. Only seven indexes address the policy situation pre-1970s (see the Appendix S1 for the list of indexes that employs a historical perspective). A historical analysis would be useful to put into perspective contemporary migration trends and policy responses (Seeleib-Kaiser, 2019). One of the noteworthy exceptions to this trend is the set of indicators developed by Timmer and Williamson (1998), who analysed the development of migration policies for the period 1860–1930 in five countries that were relevant immigration countries at that time (Australia, Argentina, Brazil, Canada, and the United States). Another exception is Peters's (2015) set of indicators, which covers immigration policies from the late 18th century through to the early 21st century. Indexes applying a more historical perspective, namely the ones covering the period before the 1970s, span a higher number of years, as revealed by the Wilcoxon rank-sum test ($z = -3.973$, $p < 0.001$). On average, 'historical' indexes cover 68 years, while 'contemporary' indexes cover four years.

3.4. The links between thematic, geographical and temporal coverage

To explore the conceptualisation of migration and migration policy in its entirety, and not only referring to the topics, countries and years covered, we now explore the links between thematic, geographical and temporal coverage. While temporal coverage seems not to be linked to the others, geographical and thematic coverage are positively correlated (see also Tables S2 and S3 in the Appendix S2). The higher the number of policy sub-areas covered by one index, the higher the index is in terms of its geographical diversity ($r_s = 0.41$, $p < 0.001$). The control dimension is more highly correlated to diversity ($r_s = 0.43$, $p < 0.001$) than the integration dimension ($r_s = 0.29$, $p < 0.05$). This might suggest that integration is seen as an issue that mainly affects major destination countries in the EU/OECD. Addressing emigration policy is also linked to a wider geographical diversity ($z = -3.488$, $p < 0.001$). Indeed, indexes that focus on emigration tend to include countries that are major sending-countries, but their wider diversity in geographical coverage suggests that immigration is primarily seen as an issue for EU/OECD countries.

The positive correlation between geographical and thematic coverage may seem surprising. Indeed, indexes that focus on one specific sub-topic should be able to widen the geographical scope, as in the case of the Dual Citizenship Dataset covering 200 countries (Vink et al., 2015). Instead, the positive correlation between the geographical and thematic scope suggests that the choice of topics and countries to be included is linked to the extent of the indexes' overall conceptualisation of migration policy (and projects' objectives), rather than simply to projects' constraints (i.e., in terms of the project budget or duration, see also conclusions).

4. Conclusions

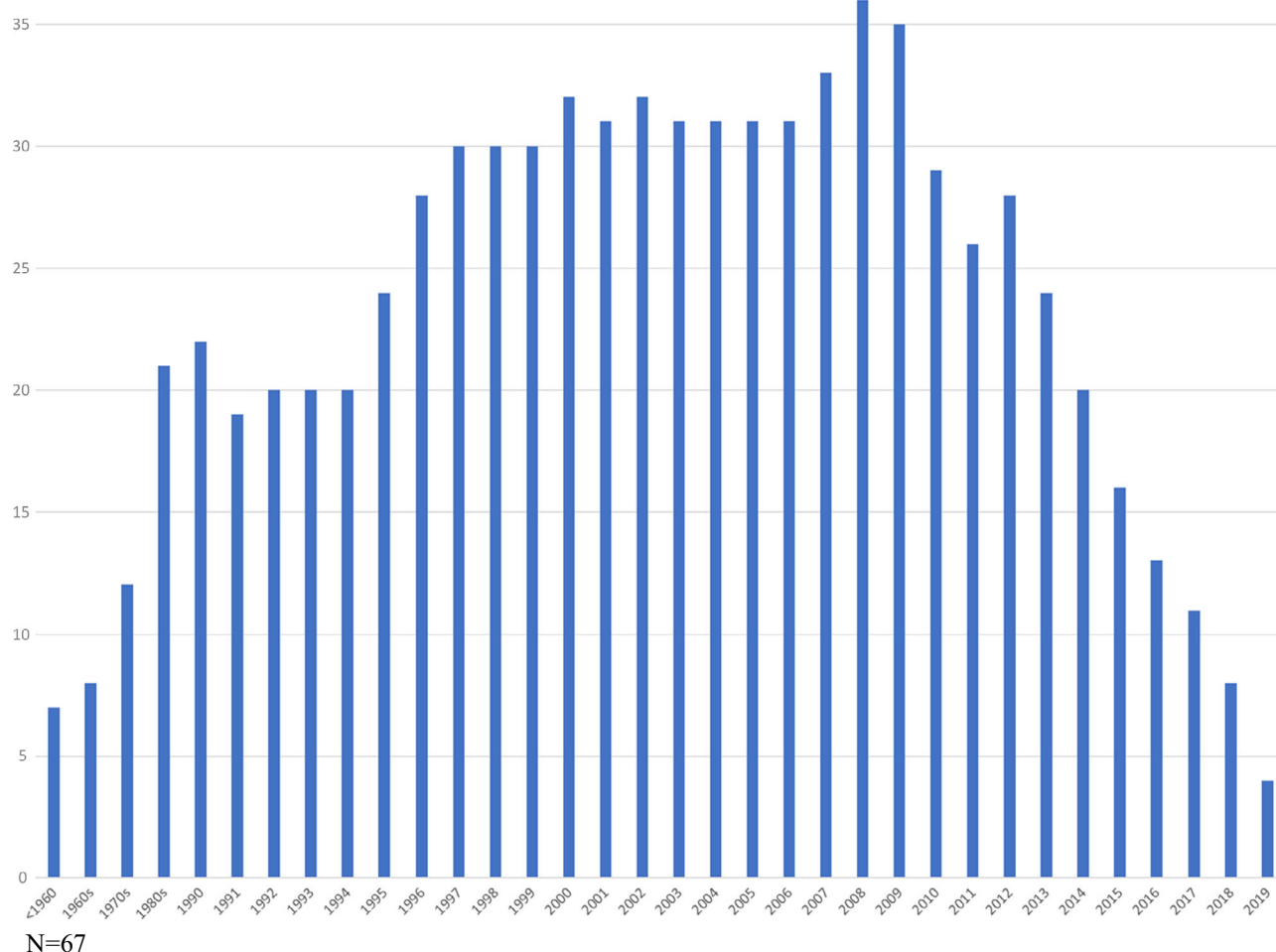
This article analyses the existing migration policy indicators and indexes that have been used – over recent decades – to measure the nature of migration policy frameworks and to compare them across different countries and periods of time.

The article contributes to migration studies by capturing the conceptualisation of migration policy that underlies these existing indexes, in terms of their thematic, geographical and temporal coverage. Our analysis reveals that migration policy has been mainly conceptualised as a contemporary phenomenon that concerns the major destination countries in the OECD/EU. Developing countries and emigration policies have been largely neglected. This trend follows a general bias in the wider field of migration studies, as shown by recent comprehensive reviews of the field (Levy et al., 2020; Pisarevskaya et al., 2019).⁸

Furthermore, this perspective on (im)migration policy is mainly linked to the control of migration (e.g. admission policies). When integration is included, this conceptualisation is mainly limited to employment and legal integration (Goodman, 2015), with nationality acquisition (citizenship) being the most frequently mentioned policy area. The development of migration policy indicators seems only weakly linked to the expansion of migration policy research, as the latter has most frequently focused on integration- and asylum-related topics (Solano and Huddleston, 2021).

This article's findings show that migration indexes reinforce the literature's general focus on immigration in developed countries and further the knowledge gap on migration between developed and developing countries (Levy et al., 2020; Pisarevskaya et al., 2019). Although many international migrants still live in developed countries, international migrants are also present in developing countries and many developed countries are experiencing increasing emigration flows (UN, 2019). To fill these major knowledge gaps, additional studies are needed on policy for emigrants in developed countries and immigration policy in developing countries.

As underlined by Palop-Garcia and Pedroza (2019), this under-development of migration policy indexes' scope can be linked to three possible explanatory factors. First, the production of knowledge takes place in contexts that influence it (Geddes and Scholten, 2015). Migration scholars and

Figure 2. Number of indexes that covers one year

researchers are mainly from organisations and institutions from the developed world (Levy et al., 2020; Pisarevskaya et al., 2019), and immigration is often highest on media and policy debates in these countries (Dennison and Nasr, 2019). Therefore, researchers are more likely to focus on immigration policy in developed countries. Second, availability of funding is higher in developed countries, leading to a bias in research outputs. Third, researchers may find it more feasible and methodologically sound to conduct research in countries with relatively harmonised legal and policy systems, as is the case in the EU and OECD.

While thematic, geographical and temporal gaps persist, the situation has recently improved in terms of the development of the field of migration policy indexes. For example, MIPEX and CDI (migration strand) have expanded their scope by including China, India, Indonesia, some Latin-American countries and others (CGDEV, 2020; Solano and Huddleston, 2020). Also, Blair and colleagues (2020) analysed asylum and refugee policies in more than 90 developing countries.

Future research should follow these examples to widen the geographical scope of the analysis – including, for

example, developing countries – and address understudied migration policy areas, such as emigration policies and migration governance.

This exploratory article aimed to enhance our understanding of how migration policy is conceptualised in terms of thematic, geographical and temporal coverage. Our findings call for further research on this. Future studies can address these aspects in more detail, for example by analysing the sub-areas within emigration policy or by focusing on different definitions of the immigration sub-areas in the indexes that cover the same sub-areas. Furthermore, analyses on additional aspects linked to indexes' creation are needed on the entire set of existing indexes, such as the measurement and aggregation methods employed. Finally, researchers should analyse the mechanisms behind the conceptualisation choices of index creators, by conducting qualitative interviews with them.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Notes

1. For example, the early drafts of the UN's Draft Global Compact on Migration promoted participation of all states in MIPEX as a means to identify challenges and best practices (see: Global Compact for Safe, Orderly and Regular Migration – Draft REV 1, « 26 March 2018, section 30(a), p. 18).
2. Some authors define immigration policy as only admission-related policy (e.g., Bjerre et al., 2015; Pedroza, 2020), while in this article we consider them as all the policies that address immigrants (and their descendants).
3. The choice of the year is based on data availability and years that indexes cover more frequently. All the variables that are not based on our review of indexes has been taken from United Nations.
4. Given the small number of cases and standard deviation, we employed the median, as it is less sensitive to outliers. This applies to all the average values illustrated in the article.
5. To allow for a comparison with the other continents, the percentage considers only one country of the ones in the third position.
6. IMPIC and MIPEX updates will be published soon, therefore we decided to include the updates in the analysis.
7. We checked for multicollinearity and two strong correlations emerged, between developed country and African country ($r = -0.60$, $p = 0.000$) and EU-15 country and OECD country ($r = 0.61$, $p = 0.000$). We decided to include the variables as the results of the other variables do not change with or without those variables. The correlation between income group and OECD country was also moderately high ($r = -0.45$, $p = 0.000$). When the OECD variable is removed, the effect of income group becomes significant ($r = 0.17$, $SD = 0.05$, $p = 0.000$).
8. See also <https://migrationresearch.com/>.

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Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix S1. List of indexes covered by the review.

Appendix S2. Analyses.

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