New insights and methods in studying the socio-economic determinants of migration

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Dedication

To my beloved boyfriend Adrian, for his devotion and confidence in me, and to my family, especially to my mother for her kindness and infinite support.

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Resumo

As crises de emigrantes e refuxiados baséanse en disparidades económicas, sociais, culturais, humanitarias, etc. entre os países de orixe e destino. Dependendo da eficiencia coa que se xestionen, estas crises poden afondar ou suavizar os problemas na orixe e tamén nos países de destino. Esta tese de doutoramento explora as posibles respostas ás preguntas "Por que apareceron estas crises?" e "Como se poden manexar con destreza para non socavar de ningún xeito nin na orixe nin na área de destino?", centrándose en comprender os motores da migración, e en posibles formas de xestionar eficientemente a crise migratoria. A tese xira en torno á hipótese de que as decisións migratorias son unha síntese de factores económicos, sociais, culturais e tecnolóxicos que cambian continuamente e repercuten tanto na rexión de orixe como nas de destino. Empregando métodos cualitativos e cuantitativos, as análises realizadas aportan valiosas contribucións aos enfoques teóricos e metodolóxicos da literatura existente sobre os motores da migración. Ademais, os resultados acadados teñen importantes implicacións para os responsables políticos a través das suxestións e recomendacións formuladas, que reforzan a idea de que a migración e a cultura son medios importantes para lograr un desenvolvemento sostible.

Resumen

Las crisis de migrantes y refugiados están causadas por las disparidades económicas, sociales, culturales, humanitarias, etc. entre los países de origen y de destino. Dependiendo de la eficiencia con la que se gestionen, estas crisis pueden profundizar o suavizar los problemas en los países de origen y destino. La tesis explora posibles respuestas a las preguntas "¿Por qué aparecieron estas crisis?" y "¿Cómo se pueden manejar hábilmente para no socavar de ninguna manera ni el origen ni el área de destino?", enfocándose en comprender los factores impulsores de la migración y en las posibles formas de gestionar de manera eficiente la crisis migratoria. La tesis gira en torno a la hipótesis de que las decisiones migratorias son una síntesis de factores económicos, sociales, culturales y tecnológicos que cambian continuamente e impactan tanto en la región de origen como en la de destino. Empleando métodos cualitativos y cuantitativos, los análisis de la tesis aportan valiosas contribuciones a los enfoques teóricos y metodológicos de la literatura existente sobre los impulsores de la migración. Además, los resultados alcanzados tienen implicaciones valiosas para los responsables de la formulación de políticas a través de sus sugerencias y recomendaciones que refuerzan la idea de que la migración y la cultura son medios importantes para lograr el desarrollo sostenible.

Abstract

Migrant and refugee crises are built upon economic, social, cultural, humanitarian, and other disparities between origin and destination countries. Depending on how efficient they are managed, these crises can deepen or soften the problems in origin and the destination countries. The thesis explores possible answers to the questions "Why did these crises appear?" and "How can they be skillfully handled to not undermine in any way neither the origin nor the destination area?" being focused on understanding the migration drivers and on possible ways to manage migration crisis efficiently. The thesis revolves around the hypothesis that migration decisions are a synthesis of economic, social, cultural, and technological factors that change continuously and impact both the origin and the destination regions. Qualitative and quantitative methods were employed, the thesis's analyses bring valuable inputs to the theoretical and methodological approaches to the existing literature on migration drivers. Moreover, the thesis's results have practical implications for policymakers through its suggestions and recommendations that reinforce the idea that migration and culture are essential means in achieving sustainable development.

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Introduction

"Even if we are now moving away from crisis mode, it is evident that migration will remain a challenge for a generation of Europeans. Europe urgently needs to equip itself with future-proof means of managing migration responsibly and fairly".

President of the European Commission Jean-Claude Juncker (2017)

As the German Chancellor Angela Merkel warned in her speech ahead of the EU summit (Shubert et al., 2018) "Migration could be a "«make or break»" issue for the European Union". The migration and refugee crisis links several aspects: the increased migration from the Middle East and North Africa, an aging population in EU developed countries, the EU relations with Turkey, the controversies regarding human rights, and humanitarian action. Despite the issues mentioned above, Europe deals with a lingering debt crisis, a rise of European populism, and Brexit. Usually, these crises have political consequences, intensifying the tensions between EU member states.

A key to preventing these crises stands in a proper understanding of its causes, in other words finding accurate responses to the questions of *why people migrate? What are the factors that weigh more in making migration choices?* May provide us with real support on these matters. In this regard, the classical determinants of migration are intensively studied within the economic approach of migration decisions. The economic approach uses the theory of human capital, and its rationale is that individuals consider migration as an investment if it implies a better return on their human capital. Within this approach, the most encountered economic models are the human capital model (Sjaastad, 1962), expected income model (Todaro, 1969), risk propensity and risk aversion model (Stark & Bloom, 1985), utility of consumption model (Christian Dustmann, 1995), etc. These studies focus on comparisons between origin and destination regions about GDP, expected income, job-finding probability, regions' wealth, employment rate, income distribution, etc. The results of these studies demonstrate a positive relationship between migration and economic drivers; in other words, the higher the wealth differentials between origin and destination regions, the higher is the propensity to migrate.

Other determinants of migration go "beyond GDP". Migration also rises from social factors by comparing the differences in income distribution, types of inequality, general well-being, etc. Studies that explain migration taking into account social factors are Collier (2015), Park (2015), Brunetta et al. (2004), Smith & Floro (2020), etc. These studies suggest that the propensity to migrate is higher when the dissatisfaction with the social conditions (including the provision of basic human needs: nutrition, water, shelter, and sanitation, etc.) from the origin areas is increasing. Besides, the institutional framework from the origin/destination countries may create push/pull factors of migration. In this regard, Arif's research (2019) is the first study that analyzed the influence of economic, political, and social institutions on international migration for 103 countries over 1990-2000. Their results indicate that economic freedom has the most substantial pull effect and that economic and social institutions are the most important push factors of migration.

Apart from socio-economic factors, other studies stress the importance of culture on migration flows, as White and Buehler (2018), Adserà (2015a), Aleksynska (2011), Geis et al. (2013), Nejad and Young (2016), Migali (2018), Giuliano (2007). For instance, White and Buehler (2018) examined the impact of different cultural distance measures (Inglehart measure, Hofstede measure, and the GLOBE cultural distance) on international migration flows, showing that dimensions associated with individualism, uncertainty avoidance, and perceived gender roles are more influential in determining immigrant flows than other cultural dimensions. Also, Belot and Ederveen's study (2012) provides sound empirical evidence on the central impact of cultural distance (using linguistic distance, religious distance, a composite index of cultural distance) on migration. Moreover, Alesina and Giuliano (2010) showed that strong family ties increase home production labor force participation of women and discourage mobility. It is worth mentioning that

the relationship between culture and migration may be analyzed from other perspectives, for instance, when considering the cultural consequences of migrants in the destination areas. In this regard, Hugo and Moren-Alegret's research (2008) stresses the key impact of mobility for the revival of rural areas from Spain, Greece, and Portugal; and Meyers's research (2000) which, although done a long time ago, makes two important observations perfectly valid today: firstly, the difficulty of creating sound immigration policy changes in response to different cultural environments and, secondly, the difficulty of quantifying culture.

Migrant and refugee crises are built upon economic, social, cultural, humanitarian, etc. disparities between origin and destination countries. Depending on how efficient they are managed, these crises can deepen or soften the problems in origin and the destination countries. Two central questions remain "*Why did these crises appear?"* and "*How can they be skillfully handled to not undermine in any way neither the origin nor the destination area?"* The thesis explores possible answers to these questions, focusing on understanding the migration drivers and possible ways to manage migration crises efficiently. Whereas the thesis aims at offering answers to these two general questions, its secondary objectives can be divided into two categories upon their contributions to the theory and the methodology to the field of the economics of migration. The first theoretical objective aims to describe how the economics of migration evolved and what its characteristics are. Another theoretical objective is to explore the impact of cultural and digital factors in making migration decisions and to analyze the impact of migration on inequality in origin and the destination regions. The last theoretical objective is to bring a significant contribution to a gender-sensitive migration theory, given that it analyzes the gender experiences of highly skilled migrants from academia. From a methodological point of view, the thesis's objectives are to find a valuable quantitative instrument to measure the impact of culture on economic phenomena, including migration processes, and, secondly, to create a comprehensive model of migration determinants using partial least squares structural equation modeling.

The thesis revolves around the hypothesis that migration decisions are a synthesis of economic, social, cultural, and technological factors that change continuously and impact both the origin and the destination regions. Moreover, the thesis's premise is that migration and culture are critical instruments in developing sustainable development strategies. Each of the research presented in the following chapters contains original contributions that add valuable input to the theoretical and methodological approaches to the existing literature on migration drivers.

The thesis is employing quantitative and qualitative methods to achieve these research objectives. More specifically, to determine the trend and the characteristics of the research area economics of migration, a bibliometric analysis is employed (Chapter I), and linear regressions are applied to estimate the relationships between various determinants of migration and migration flows (Chapter II). Another quantitative method employed in Chapter III and Chapter IV was partial least squares path modeling to analyze the relationship between cultural distance and migration flows and to analyze the structural relationship between the determinants of migration flows. The last chapter draws on qualitative methodology, using a semi-structured questionnaire with a life course approach, where aspects of personal and professional life are evaluated after migration to Brussels.

The incursion into the study of migration drivers begins with an introduction about the importance of migration to development, the terminology specific to migration (internal migration, international migration, refugee and asylum seeker), the main economic theories of migration, and two approaches to studying the relationship between migration and development. It also brings answers to two topical questions, comparing the strategies used by institutions in dealing with international migration and with international trade: *"Why haven't international institutions deal with world migration like they deal with world trade?"* and "*How should the immigration policies in the host countries be?"* and it is analyzing the economic and demographic drivers of migration.

The first chapter offers a consistent picture of the structure of the interrelated fields of economics and migration, assuming that this field registered an ascending trend over time. Within

this objective, a particular focus is on publications about the impact of culture on migration. To achieve this objective, the evolution of the number of publications on these topics has been tracked in three databases: Web of Science, Scopus, EconLit, and different citation and bibliometric network analyses were performed using VOSviewer software. The citation analyses were based on Web of Science citation reports for the timespan 1990-2021. The analyses of the bibliometric networks were based on 1.188 publications exported from the Web of Science Core Collection for the period 1958-2021. The citing articles of the publications on this topic show that the top research areas are environmental sciences, business economics, geography, and sociology and that they originate from the USA, UK, China, Australia, and Germany. The analyses of the bibliometric networks identified six clusters of researchers, six clusters of journals, and nine clusters of countries. The first chapter demonstrates that, although the field of economics of migration is developing more and more, its structure still indicates a primary focus on the economic component, which can be seen in the network visualizations. Furthermore, regarding the publications about the socio-cultural impact on the economics of migration, although it has received an increased interest lately, it remains underdeveloped, a fact that is shown through the lack of specific clusters of journals/researchers or even the presence of the term “culture” in the networks of terms.

Given the fact that most of the research on the topic of the impact of culture on the economics of migration uses historical evidence and employs qualitative and mixed research methods, the second chapter aims at enriching its methodology by proposing a valuable quantitative instrument: a cultural matrix based on Hofstede cultural dimensions’ theory. After analyzing different computing methods of cultural distance, the most appropriate one seemed to be a weighted composite method. The applicability of the composite measures of cultural distance (unweighted and weighted) was compared in a model explaining Spanish migration flows to 35 OECD countries in 2005-2017. The second chapter provides new insights by recommending weighted composite measures of cultural distance in economic analyses. In addition, it highlights the importance of drawing each cultural dimensions’ weight appropriately, given that inadequate estimations of cultural dimensions’ weights can significantly alter the research results and misrepresent the reality.

The third chapter explores the influence of cultural distance on migration flows in the EU to see if there is a model/pattern of general behavior in this regard. Given the exploratory goal of the third chapter, it is focused only on the Romanian case. Employing World Bank data for the decades between 1960 and 2000 and a cultural distance based on the six cultural dimensions’ model developed by Hofstede, SEM (Structural Equation Modeling) methodology is applied using Smart-PLS software. The research has several management implications: firstly, the findings demonstrate that culture is crucial in decision-making and, acknowledging this fact leads to better solutions to migration problems between various EU countries. Moreover, this research indicates that studying only the economic aspects of migration is not sufficient; there is also a need to grasp the complexity of cultural aspects. In this regard, culture is a powerful resource and can be instrumental in finding proper strategies for migration crisis and conflict management. Given the impact of language/linguistic similarities on migration decisions, the third chapter contains a case study on the Romanian emigration to Italy where demographic data, phases of Romanian emigration to Italy, and the special role of the informal labor market recruiters are described.

Bearing in mind the economic and the socio-cultural determinants of migration from Chapter II and Chapter III, the fourth chapter extends the understanding of migration drivers by considering the effect of technological/digital aspects in explaining migration issues. In this regard, the fourth chapter aimed at creating a comprehensive model of migration determinants, taking into account four dimensions: economic, social, cultural, and digital. A path model consisting of these dimensions was created and estimated through partial least squares structural equation modeling (PLS-SEM). The PLS-path model was applied to Romanian migration flows to 21 EU member states during the period 2007-2017. The research from Chapter IV adds a well-developed model

to the literature about the key drivers of migration. Comparing it with other techniques, this path model offers an exhaustive perspective over migration determinants. The path model developed in the exploratory research from chapter four rests on hypotheses already stated in the literature. The research from Chapter IV implies that that social and technological development have significant impacts on migration. In this regard, increasing EU investments in ICT development and digital competencies is crucial since it will diminish intra-EU discrepancies in technology use and will foster economic competitiveness.

People migrate to surmount poverty, conflict, or economic difficulties, migration being one of the defining features of the 21st century that can contribute to achieving the Sustainable Development Goals. A better understanding of the connection between migration and critical development issues is needed to make this happen. On this account, the last chapter shifts the attention to the interplay between migration, poverty, and inequality. It is a well-known fact that two of the main prerequisites of sustainable development are reducing poverty and decreasing inequalities in economic terms and non-economic terms. Poverty exists when people lack the means to satisfy their basic needs. Depending on different definitions of basic needs, there are two perspectives: a narrow one in which poor people are considered the ones near the borderline of starvation or death and another one, an extended version, in which poor people are the ones whose nutrition, housing, and clothing, though adequate to preserve life, do not measure up to those of the population as a whole. In addition to this economic component of poverty, there is also a noneconomic component, in which poverty is associated with a low level of education, poor health, inability to work, high rates of disruptive behavior, etc. In this light, the first part of the last chapter describes how migration may decrease/increase the inequality in the destination and the origin countries, illustrating, on the one hand, the disparities between the ones who move and the ones who stay and, on the other hand, the inequalities between these two categories in the destination country. The first case, centered on disparities in the origin countries, starts from the premise that increased poverty and inequality lead people to migrate to find better working and educational opportunities. It also analyzes the effects of brain drain and remittances at the household and the national level. The second case focused on disparities in destination countries, centered on migrants' problems in destination countries, such as overqualification, higher unemployment rates, lower income, higher probability of working in informal jobs, discrimination, and social barriers.

Another key development issue is gender and social norms in migrants' origin and destination areas that influence migration outcomes. Against the recent emphasis on skills and migration (Docquier et al., 2009; European Commission, 2002, 2020; Solimano, 2008), there seems to be a scarcity of studies analyzing the gender experiences and obstacles of highly skilled migrants (Kofman, 2000, 2004, 2012). The lack of interest in studying skilled women migrants is explained by the increased focus on women's role in the domestic and caring sector and the focus on the skills for the occupations in the knowledge economy, which seems to be associated with male migrants, and the unfounded assumption that migrant women not employed in skilled sectors do not possess skills, assumption falsely applied to wives who entered through family migration programs or who come to join a partner. Given that very few studies are concerned with the gender experiences of highly skilled migrants in the destination countries, the second part of chapter five is a qualitative analysis of highly skilled migration from a gender perspective. The research from the last chapter aims at understanding highly skilled migration from academia in Brussels through a gender-based approach. The study is based on a semi-structured questionnaire with a life course approach, where aspects of personal and professional life (mainly focused on gender disparities, perceived transitions, and life events) are evaluated after migration to Brussels. Following three analytical themes: macro-structural factors, gendered agency, and changes in gender relations throughout the academic career, the questionnaire was applied to academics from *The Institute for European Studies* and *Group for Research on Ethnic Relations, Migration, and Equality* of *Université Libre de Bruxelles*. Whereas initially, the questionnaire was intended to be applied only

to women from academia, after reconsidering the premises of unfair treatment, it was applied to both genders. The last part ends with recommendations to achieve Goal 1 (no poverty), Goal 5 (gender equality) and Goal 10 (reduced inequalities) within the UN 2030 Agenda arguing that the key of successfully implementing those measures stands in a new paradigm of creating development strategies, the one that considers culture and migration as intertwined with sustainable development.

1. International migration history

The early waves of migration involved family groups from the more-developed European economies, usually farmers and artisans. Hatton and Williamson (Hatton & Williamson, 1994) analyzed the driven forces of migration: the economic and demographic factors. More specifically, the fall in transport costs in the mid-nineteenth century made migration feasible for a widening pool of potential migrants. Secondly, the rising income in the sending countries expanded the pool of immigrants, including several poor groups. Regarding the demographic factors, it is emphasized how the demographic transition from the entire nineteenth century and the friends-and-relative effect have created big cohorts of young people prepared to migrate to developed countries.

Hatton and Williamson speak about two migration environments: the one that was formed by the Atlantic economy and the second one formed by the rest of the world (Hatton & Williamson, 1994, pp. 3–56). In the southern half of the Atlantic economy, free mass migration delayed three or four decades, and in the other parts of the world, they delayed for almost a century. Regarding the Atlantic economy, the peak of mass migration is considered 1913. This period was followed by restrictive policy, caused by several factors: war, depression, the increased flows of poor migrants, and the unskilled labor scarcity. Comparing the periods of mass migrations before the First World War and those since the Second World War, they found several similarities and differences. The main similarities are the following: that the mass migration in both cases grew and its scope expanded; in both periods, the migration direction was from the poorer parts (but not too poor) to the wealthier parts of the world. Another common feature of these two periods is the widening development gap between high-wage host countries and low-wage source countries.

Furthermore, the gap in labor market performances between new and old immigrants contributed more and more to the quality gap between immigrants and natives in host countries. This gap may result from the shift from positive to adverse selection of immigrants and the changing mix of source countries (from those with higher levels of education and skills to those with lower levels of education and skills). This gap has widened greater and more significant in both periods but has become much more prominent after 1870.

The differences are also significant: the leading destinations for European emigrants in the late nineteenth century were the Americas and Australasia. In the late twentieth century, Europe became a destination for immigrants. The main difference between the two centuries lies in immigration policy. While in the nineteenth-century host countries encouraged immigration, in the 1920s, these countries imposed an anti-immigrant policy based on quotas. Since the 1970s, the policy changed its goals: it became much less discriminatory (while the policies before the 1970s restricted immigrants to a key source, the ones after the 1970s admitted immigrants from everywhere globally). Secondly, the policy has become more skill selective: from low-skilled guest workers to high-skilled permanent immigrants (Hatton & Williamson, 1994, pp. 3–56).

Furthermore, it can be observed a policy difference between trade and migration policy: the immigration policy was more pro-global than trade policy in the first century. In contrast, the reverse is applied in the case of the second century. According to the theory, within a two-factor model, migration and trade are perfect substitutes. Therefore, restrictions on trade and restrictions on migration go hand in hand. It may be considered that, despite several factors that may explain this paradox, as the spread of democracy, the decline of empires, the changing social norms and attitudes toward immigrants, politics, etc., three main factors may explain this paradox.

The first factor is related to discrimination and the labor market; it is emphasized that at the start of the first century, European emigration was conditioned by migration costs and poverty trap, while in the last years of this century the immigration from the poorer parts of Europe increased very much and that was the moment when the debate about immigrant restrictions and exclusion started. The second one is about the government revenues, social expenditures, and the fiscal impacts of immigration and trade. In the first century, immigration mattered less than the fiscal impact in the second century because in the first case the immigration has not brought high fiscal costs. Therefore, for the period before 1914, high tariffs and low immigration restrictions coexisted for fiscal reasons. By contrast, from the 1930s to 1970s, social services and the welfare state expanded very much, creating the need to control social spending. Therefore, in the second century, low tariffs and high immigration restrictions coexisted for fiscal reasons. The third factor is the presence/absence of international cooperation; in this regard, the GATT organization can be compared with the IOM organization, the first one as an example of international cooperation that achieved to reduce tariff levels since 1948 while the second, despite being created in 1951, it had not established such accomplishments regarding migration as those of GATT. Therefore, IOM should reform its goals to establish the architecture for international cooperation on migration issues.

In this context, one may ask, "*Why haven't international institutions deal with world migration like they deal with world trade?"* A good start is by comparing the principles upon which modern trade was built: reciprocity, nondiscrimination, and fair treatment. It is a well-known fact that these principles stood as the basis for bilateral agreements in the nineteenth century and multilateral ones in the following periods. In theory, these arguments for free trade are the same as for free migration. However, it seems that the argument of reciprocity is different in the case of migration because migration is more like a one-way street, being more beneficial for the receiving country. Furthermore, if looking at the bilateral migration balances and the trade ones, the migration ones are far more unequal than the second ones. It is important to note that this idea does not imply that other forms of limited cooperation with significant migration flow in both directions do not exist, such as The European Union's Schengen Convention, Nordic Common Labor Market of 1954, ECOWAS, etc.

Another question arises: "*How should the immigration policies in the host countries be?"* The answer may rest on three immigration policy options: a selective immigration policy, which may contain a points system; the second one consists in taxing the immigrants, such as a tax on employers or schemes through which migrants would only pay if their earnings exceed some threshold. The last one is referring to temporary work schemes, but this one may discourage the immigrant acquisition of human capital and may create gateways to permanent migration for those who want to come.

2. Conceptualizing migration

After understanding the historical evolution of migration and its relations with trade, we now turn our attention to recent decades where this issue remains prevalent in today's debates, especially when speaking about the refugee crisis from 2015. Therefore, this subchapter offers an overview of the main concepts related to migration and several observations about the refugee crisis from 2015. The concept of migration is understood as the movement of a person or a group of persons within a country (internal migration) or across an international border (international migration). Regarding the former, there are two types of migration: in-migration, the permanent movement of persons into a new area, and out-migration, the permanent movement of people out of their origin area. Regarding international migration, there are emigration, the process of departing from one country to another, and immigration, the process by which non-nationals enter into another country (IOM, 2011).

As the crisis is not referring only to immigrants but also to refugees and asylum seekers, it has to be distinguished between these two terms. According to `Convention Relating to the Status of Refugees, Art. 1 A(2), a refugee is a person who "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it." (UNHCR, 2018) while an asylum seeker is a person who applies for asylum to be acknowledged as a refugee, but it does not have this status yet (UNHCR, 2018).

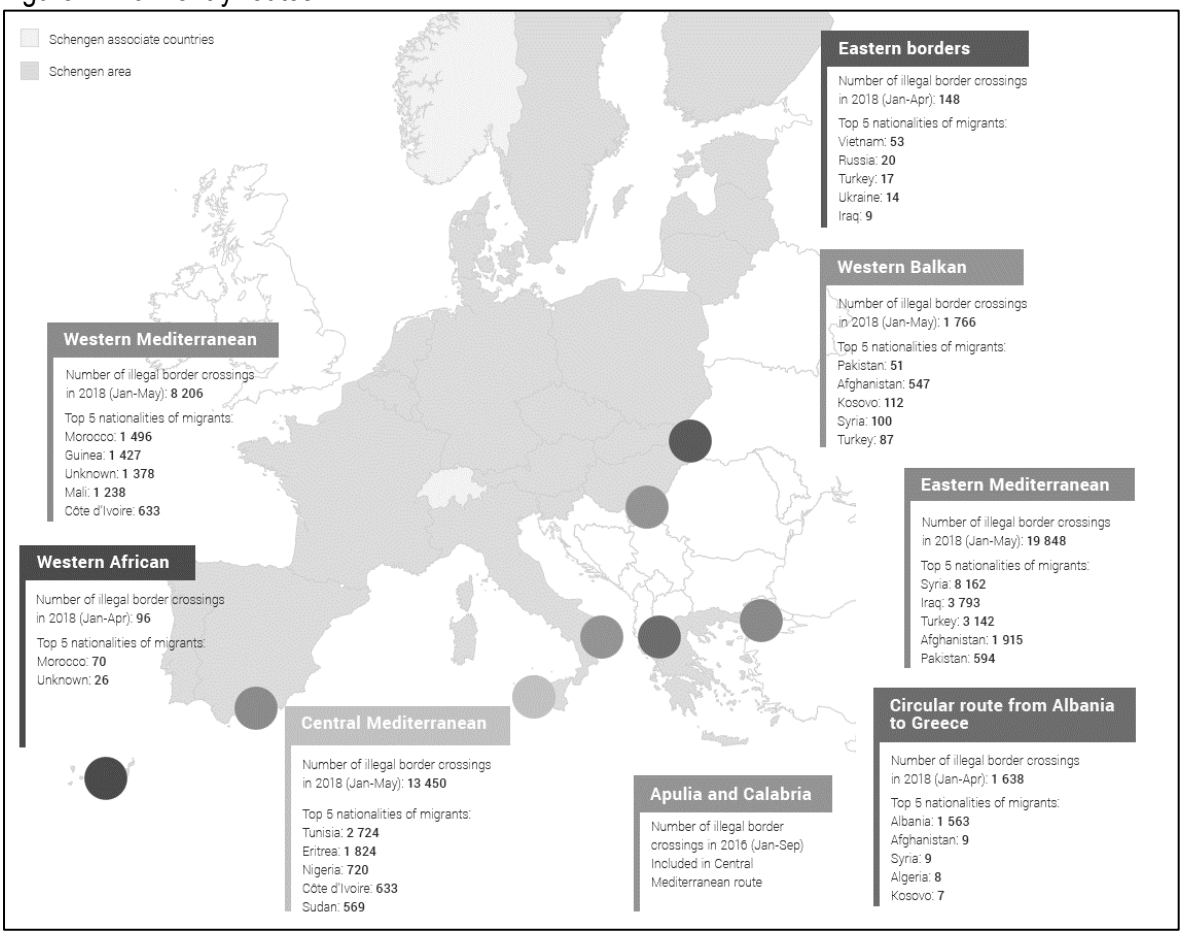
Furthermore, it should be taken into account several observations about the refugee crisis from 2015: the migratory flows from the Middle East are a part of a new historical period in terms of international migratory pressures. One of the most contributing factors of this fact is the persistence of significant inequalities regarding salaries between countries and the demographic dynamics of the developed world (the increasing aging population) and of the developing world (with more equilibrated cohorts of the population). Besides, another factor of migration regards the consumption lifestyles in the developed world that are spread rapidly in the developing world, alongside the diminishing costs of displacements and transportation (Alonso, 2011).

The migration crisis that ended in 2019 continues to create more animosities, debates, and controversies between EU states. As Figure 1 shows, in 2018, there were eight routes of entry: the eastern border, the majority of them coming from Vietnam, Russia, Turkey, Ukraine, and Iraq, the second route is the Western Balkan, the top nationalities being Pakistan, Afghanistan, Syria, and Kosovo. The third route is the Eastern Mediterranean, the majority of them coming from Syria, Iraq, Turkey, Afghanistan, and Pakistan. Furthermore, there is a circular route between Albania and Greece and another route from Apulia and Calabria. Through the Central Mediterranean route, the majority of migrants have Tunisian and Eritrean nationalities. Through the western African route, most irregular migrants came from Morocco, and through the last route, Western Mediterranean came migrants with Moroccan and Guinean nationalities (FRONTEX, 2018).

When looking at the demographic characteristics of the immigrants, an IMF report states that the immigrants from the 2015 wave of asylum seekers are on average less educated than the native population or other immigrants, the majority of them having lower secondary education or less. Furthermore, it is interesting to see that the immigrants born in other countries, developed EU countries, tend to have better educational outcomes than the native-born population. Also, it is noteworthy that the 2015 wave of asylum seekers was better educated than past immigrants from the same origin countries. For example, in Germany, 21% of Syrian asylum seekers who arrived in 2013-2014 reported having tertiary education (Aiyar et al., 2016).

If the migration outside the European Union poses several problems, the intra-migration within the European Union raises also s couple of questions. These problems are the intensifying tensions between the European countries, the exit decisions, skepticism (German and Dutch politicians), and the support for new controversial EU rules (such as "posted workers" rule backed by French politicians). These problems have been the subject of analysis in the media (The Economist, 2016) and in academia. For example, an IMF report from 2016 (Atoyan et al., 2016) found out that emigrants' origin countries have been most hurt, especially for Eastern European countries where emigration strained their growth, public finances, etc. accentuated demographic problems.

Figure 1. Main entry routes



Source: FRAN and JORA data as of 6 June 2018

2-1 Economic theories of migration

According to Kureková (2010), there are eight theories of migration. Five of them have as the subject of analysis the determinants of migration, and the other three have the subject of analysis the perpetuation of migration. The first one is the neoclassical theory which defines migration as the result of labor differences across markets. The basic model was initially developed by Lewis (Lewis, 1954, pp. 139–191) and Harris and Todaro (Harris & Todaro, 1970, pp. 126–142) and the central argument of this approach focuses on wages: the driven factors of migration are geographic differences in labor supply and demand and the wage differences between countries rich in labor and countries rich in capital. The model predicts a linear relationship between wage discrepancies and migration flows and, in the extended neoclassical models, the expected, rather than actual earnings, determine migration.

As time went on, different studies adjusted the model in distinctive ways. These studies proved that the linear relationship between migration and wage differential does not hold. They have taken into account the cost associated with migration. They have demonstrated that it is not the poorest individuals who migrate, nor the most impoverished countries that send the most labor (Haas, 2010, pp. 227–264), (C. Dustmann et al., 2003), (Massey et al., 1999).

At the micro-level, the equivalent of the neoclassical model is the human capital theory of migration. Introduced by Sjaastad (Sjaastad, 1962, pp. 80–93), the theory upgrades the neoclassical model by incorporating the socio-demographic characteristics of a person (skill, age, occupation, labor market status, preferences, expectations, etc.) as an important deterministic factor of migration. Bauer and Zimmermann's theory (Bauer & Zimmermann, 1999) demonstrated that migration levels decrease with age and increase with education level. Therefore migrants tend

to be more educated. Related to neoclassical theory is the push-pull framework, where the main economic determinants of migration are the result of the interaction between factors associated with the origin area (repelling or push factors) and the factors associated with the destination area (attracting factors or pull factors).

The main critiques of the neoclassical theory are the fact that it ignores market imperfections, is historical and static, it ignores the importance of policies and politics, and it homogenizes migrants and migrant societies. The main critique regarding the human capital theory is that it presents migration in an overly optimistic perspective, given that migration is not always a voluntary process to maximize gains. The wide dissatisfaction with the simplistic perspective of the neoclassical explanations leads to the emergence of a new theoretical perspective of migration.

The new economics theory of migration shifts the attention from isolated individual actors to families or households, implying that migrant decisions are not based primarily on individual decisions to maximize the utility, but rather is a household response to income risk and the failures of different types of markets, as the labor market, credit market and insurance market. Therefore, the new economics theory of migration explains the migration decision by taking into consideration factors other than wage differentials (Stark, 2003; Stark & Taylor, 1991). Stark introduces several concepts to explain this new approach: on the one hand, the term *relative deprivation*, a household status performing worse relative to other households; on the other hand, terms as risk-aversion and risk-minimization of household income. Within this model, remittances play an important role because it directly supports the household interconnectedness. Along with the limited applicability, this theory is too future-orientated and has been criticized for sending-side bias (Faist, 2000).

World-systems theory is a historical-structural approach to migration, which connects the determinants of migration to structural change in world markets and defines migration as a result of globalization, the interdependence of economies, and the emergence of new forms of production (Massey et al., 1993, pp. 431–466; Sassen, 1990; Silver, 2003). World-systems theorists explain the increased waves of migration through the expansion of export manufacturing and foreign direct investment flows from developed countries to developing countries, capital mobility, political and economic inequalities. The theory faces several critiques because individuals do not seem to have a free choice in making migration decisions (because the migration decision is seen as an outcome of more comprehensive structural processes), and the framework is too descriptive.

Based on the same idea of structural change in the economy, the dual labor market theory explains migration flows only using the demand side. Developed by Piore (1980), this theory supports the idea that immigration is caused only by pull factors in the receiving countries, precisely the labor demands for foreign workers. It is argued that this demand has been caused primarily by structural inflation in developed countries: the cost for employers to attract low-skilled workers is higher than the real cost of their wages, given that as the wages increase at the bottom level, it creates pressures from workers at different levels to increase their wages too. Therefore, employers must increase the wages proportionally according to the job hierarchy to confine with their expectations. Thus, is more expensive to hire native workers by increasing entry wages than to hire migrant workers who are satisfied with the low wages. This theory also faces several criticisms: it excludes sending countries, overemphasizes formal recruitment practices, does not explain differential immigration rates in countries with similar economic structures, etc.

Shifting the attention from determinants of migration to factors that perpetuate migration in time comes with another theory, the network theory of migration. This theory explains why migration continues even if wage differentials cease to exist, and it explains why migration patterns are not distributed evenly across countries. The network theory is closely linked with another perspective, migration systems theory. Introduced by Mabogunje (1970, pp. 1–18), this theory`s central assumption is that migration changes the socio-cultural, economic, and institutional conditions in both sending and receiving countries and creates a complex developmental space specific for migration processes. Although these two theories are very similar, there also have differences:

migration systems theory has its roots in geography, and the network theory has its roots in sociology and anthropology. The network theory emphasizes the role of personal relations between migrants and non-migrants, and migration systems theory stresses the structures created by migration at the societal level.

Another perspective, which combines features of network theory and the systems one, is *cumulative causation theory* put forth by Myrdal (1957, pp. 11–22) and further developed by Massey et al. (1993, pp. 431–466). The central hypothesis is that each act of migration influences the socio-economic context within which the later migration decisions are made so that migration tends to generate more migration. Within the cumulative theory, migration has consequences on six socio-economic factors: the first one is the distribution of income: people migrate to improve their absolute income and their income relative to other persons from the same reference group. Seeing other families improving their level of income through migration into foreign labor markets, induce others to migrate to raise their levels of income and the increasing number of people who migrate will exacerbate the level of income inequality in the area of origin. The distribution of land, says Massey et al. (1993, pp. 452–454), refers to the fact that the purchased farmland of the migrants is not cultivated as much as the ones of the non-migrants as a result of the foreign wage labor, which is more profitable than the local one. This fact reduces the demand for local farm labor and increases the migration pressures, and the process continues inducing more and more people to migrate.

Regarding the culture of migration, the fourth factor, stresses that migration produces changes at the level of preferences and values among those who migrate to another country for a short/long period; as migration grows, all the values and perceptions are changed within a community increasing the desire for future migration. The regional distribution of human capital emphasis that migration is a selective process because, initially at least, skilled and productive migrants leave behind their places of origin and settle down in the receiving countries; the continuum process of sustained migration determines a reduction of human capital in the sending regions and an accumulation of human capital in the receiving regions. The sixth factor is the social meaning of work that changes and it causes stigmatization of certain types of jobs considered inappropriate for natives.

Continuing the same line of reasoning, the above concepts have been further developed into the theory of transnational migration, a theory that emphasizes more means of migrant insertion and active participation of migrants in origin and the host countries. The transnational social spaces result from the increased migration movements and the changes within the strategies adopted by international business companies (Pries 2013). Faist (2006) identifies four types of transnational spaces: *small groups*, as households and kinship systems; *issue networks*, such as business networks, scientific networks, immigrants and citizenship associations; *transnational communities* such as village communities, religious groups, and diasporas, and *transnational organizations* as Red Cross, Amnesty International, Greenpeace. A synthesis of the main theories is presented in Table 1.

Table 1 Economic theories of migration

Theory	***Subject of Analysis***	***Variables***	***Critiques***
Neoclassical theory of migration	Determinants of migration	• Wage and income differentials • Probability of Employment	• Excludes politics and policies • Ignores market imperfections

			• Unable to explain differential migration • Homogenization of migrants and societies.
Human capital theory of migration	Determinants of migration	• Wages, economic benefits affected by individual characteristics	• Overly optimistic perspective
New economics theory of migration	Determinants of migration	• Wages and income distribution (relative deprivation) • Institutional failures – credit market, labor market deficiencies	• Critique of the neoclassical theory rather than a theory in its own • Limited applicability
World system theory (historical-structural approaches)	Determinants of migration	• Structural changes induced by the flow of capital	• Only applicable at the global level
Dual labor market theory	Determinants of migration	• Labor demand • Bifurcation of labor markets • FDI • State immigration policies and • recruitment efforts	• Excludes push factors, formal recruitment practices overemphasized. • Unable to account for differential immigration rates in different advanced economies with similar economic structures.
Network theory	The perpetuation of migration and/or directionality of flows	• Networks, diaspora	• It is not a theory, but rather a conceptual framework
Migration systems theory	The perpetuation of migration and/or directionality of flows	• Developmental space	• Purely descriptive
Transnational migration	The perpetuation of migration and/or	• Transnational social spaces	• The novelty of the concepts has been questioned

	directionality of flows		

Source: (Kureková, 2010, pp. 6–9)

2-2 Migration forecasting methods and models

There are two approaches regarding the methods and models studying migration and development: the deterministic and stochastic (probabilistic) perspectives. Within the deterministic methods and models in migration prediction, there are five models: judgmental migration scenarios, the Delphi method, 'migration potential' assessment surveys, macro-level mathematical models in demography, and demo-economic modeling attempts.

Judgmental scenarios are usually used in demographic forecasting and describe future trajectories of particular characteristics of population change (fertility, mortality, migration). Based on qualitative and quantitative methods, the scenarios have to be coherent with their underlying assumptions and, by using the what-if approach, show the demographic consequences of distinctive processes. Some examples using this methodology are Sir William Petty's study (1682) concerning the future growth of the City of London, the forecast of the East-West migration in Europe after the EU enlargement in the research of Layard et al. (1992), the gravity model of migration between Central and Eastern European countries in the works of Alvarez-Plata, Brücker, and Siliverstovs (2003).

The Delphi method is based on a group judgment by carrying out surveys among experts from various countries and fields of expertise. The exchange of knowledge is made in subsequent rounds and the final output is created from the aggregation of all the individual suggestions. Some of the examples include the study of Azrael, Brukoff, and Shkolnikov (1992, pp. 322–331) in estimating the emigration from the former USSR in the period 1992–1997, Bauer and Zimmermann (1999)'s study on migration flows from Central to Western Europe, etc. "Migration potential" assessment surveys, as it is stated in the name, are typically based on questionnaires filled in by a representative random sample of respondents, who are asked to answer if they consider undertaking migration, the reasons, the context, etc. Examples of such studies regard the East-West flows in Europe (Wallace & International Organization for Migration, 1998).

The mathematical models of migration stem from two different fields of study: demography (the impact between population distributions and migration) and human geography (the spatial outcomes of the redistribution of migrants). The deterministic nature of these models (the cohort-component model, population accounting models, multi-regional model, multi-level model MULTIPOLES) stems from their algebraic formulations and the dominant forecasting practices in demography.

The demo-economic modeling attempts are models that combine population and economic aspects of social development. An example using this type of modeling is the study of Fachin and Venanzoni (2002). Their model, called the IDEM, combines a multi-regional cohort-component model of population dynamics with an economic input-output analysis. In this model, migration is linked with demography through economic aspects: labor supply, productivity.

Regarding the probabilistic migration forecasts, there are six types of models as follows: the Markovian models, the micro-level methods, other attempts combining micro and macro perspective, the econometric forecasts, the stochastic forecasts of migration, and the Bayesian models. Regarding the use of Markovian models, it stems from the tradition of human geography, it was trendy in the 1960s and 1970s, and it emphasized the spatial redistribution of the population through migration. Regarding the micro-level methods: event-history and ethno-survey are traditional analytical techniques used initially in demography, and they have two main drawbacks: it is cost and labor-consuming and the sample used does not provide representative results. Combining micro and macro perspectives in population modeling, Courgeau (1992, pp. 120–140)

observed that both methodologies are complementary. The econometric forecasts of international migration predict migration and verify particular economic theories based on empirical data. The boom in using econometric models dated back to the 1990s and analyzed the population flows in the context of EU enlargement. The main models used within this category are the Gaussian autoregressive process and generalized linear models. The stochastic forecasts of migration are based on the analysis and extrapolation of time series and the most common methodologies are autoregressive integrated moving average models and autoregressive vector modeling. The Bayesian models are scarce, the majority of them being based on Poisson regression.

3. Discussion

One of the most severe problems when studying the effect of migration on development is its effect on labor policy. In this regard, Gutiérrez-Barbarrusa (2016, pp. 477–508) studied the characteristics of the two dimensions of precariousness: insecurity (measured by forms of atypical employment: temporary work, part-time work, and self-employment) and poverty (measured by the share of low-wage earners) and the effects on the labor market of the EU 15 countries, before and after the 2008 crisis. The results show that the work conditions are similar across countries with similar levels of precariousness. Also, the results show that there are three labor market models, according to flexibilization policies. There is the model encountered in the southern countries (Spain, Greece, Italy, and Portugal) with high levels of security and poverty; countries with a more deregulated labor market: Germany, Ireland, the Netherlands, and the United Kingdom, which presents moderate levels of insecurity and high levels of poverty and thirdly, the Nordic countries, together with Belgium and France which have moderate levels of both insecurity and poverty.

Regarding the restrictions on the labor market, Benton et al. (Benton et al., 2014) assess the factors that contribute to the slow progress in the field of labor market integration. It is based on 12 case studies from six European countries: The Czech Republic, France, Germany, Spain, Sweden, and the United Kingdom and interviews with more than 50 experts and policy-makers. The report begins with the factors that explain why immigrants with medium-skilled work remain stuck in low-skilled jobs. The main barriers to entering middle-skilled jobs are insufficient skills and experience for available jobs, unrecognized qualifications, and difficulties navigating local labor markets, formal and informal obstacles to employment. Regarding the policies to support labor market integration, the section has been classified into three areas: integration policies for new arrivals, employment policies, and vocational and language training. It was interesting to observe that employment officials were not familiar with essential integration concepts, such as credential recognition. In addition, it can be observed the lack of coherence of integration policies overall. For example, in France and Sweden, new arrivals are required to reach certain levels of language proficiency before the assessment of their skills. Another interesting fact was that many public employment services lack a systematic approach to identify the needs of language learners and people with foreign qualifications. From all the mentioned countries, only Germany and Sweden highlighted qualifications as an employment barrier for new arrivals.

Given the problems created by the European migrant crisis, a solution may be circular migration. This type of migration represents the temporary and repetitive movement of a migrant worker between home and host countries, usually for employment purposes. Based on several case studies, mainly from Asia and Africa, Agunias's (2006) report analyzes the impact of circular migration on development and focuses on policies that encourage circular migration. It is interesting to observe that this concept is a *triple-win scenario*, providing benefits for the sending countries, the receiving countries, and the migrants themselves. Developed countries allow migrants to fill the labor shortages for a specific period. On the other side, developing countries benefit because migrants will return to the origin countries after a while; therefore the developing countries will not lose their skilled workers. Furthermore, the migrants themselves benefit in at least two ways: an

increase in wages and an increase in the skills they learn abroad. It can be said that the benefits appear in three forms: financial capital through remittances, human capital, and social capital.

On the other hand, circular migration also presents several costs, as temporary brain drain, restrictions on freedom due to immoral recruitment involving false promises and deception. Circular migration may perpetuate existing inequalities and may create gender issues, given that in numerous developing countries, women are less likely to participate in circular migration. Another cost of circular migration is connected with health issues, many migrants being vulnerable to contract sexually transmitted diseases. All the above-mentioned advantages and disadvantages of circular migration have also been emphasized by Zimmermann (IZA & Zimmermann, 2014). He brings arguments of the counter-productivity of restricting labor migration. The main examples for arguing that immigration restrictions have adverse outcomes are the case of Spain after 2004, the case of Germany with the end of the guest worker program following the 1973 oil crisis, etc.

Apart from circular migration, another solution to the European migration crisis may consist of integration measures (employment incentives) taken by the authorities in the destination country. In this regard, Papademetriou and Benton's report studied the challenges of better integrating the new immigrants in Europe (Papademetriou & Benton, 2016). When referring to the labor market integration, they emphasize several facts: that, on average, foreign-born migrants in the European Union compared to the natives have lower employment rate, higher underemployment, and low-quality jobs; also, the women employment and activity rate are much lower than those of men. When compared to other countries, such as Canada/United States, the employment rate in the EU is lower for foreign-born residents than for natives, and this situation may be explained by the fact that in the European Union, newcomers find employment after a long period. The variation between employment opportunities and labor market success is determined by education, route of entry, gender, and country of origin. In addition, the report emphasized the changing labor market, the increased demand for more skilled workers, and the increased automation in several areas such as transportation, logistics, services, and sale. Also, jobs may be less connected to traditional career paths, many of future jobs being connected to freelance activities.

Another aspect that slows down the efficient implementation of the integration programs is the nature of the unemployment in the European Union. On this subject, Dimian et al.' (2017) study emphasized that the lack of collaboration between companies and the education system deepens the mismatch between job requirements and worker qualifications. Dimian et al. (2017) promote green jobs due to their double role to absorb the unemployed and promote sustainable economic growth. Furthermore, those specific employment policies, such as fix-term or part-time contracts, reduce unemployment in the short run. Thus, in the long run, there is a need also for training, retraining, and lifelong learning. According to this study, the main challenge in the developed countries is the mismatch between the job requirements and workers' qualifications and the main challenge for the developing countries is the quality of jobs.

Other recommendations for better integrating the new immigrants in Europe can be an early provision of relevant career advice: such as measures that encourage specialization, which improve networking and information-sharing mechanisms. Furthermore, there should be taken into account measures that aim at improving development opportunities, such as language instructions, more engagement from employers and unions in integration policies, online learning, etc. The above arguments on the effect of migration on the labor market stand in support of a new economic theory of migration, one that combines the understanding of the determinants of migration and the perpetuation of migration. This new theory may be a combination of the new economic theory of migration and the network theory.

Chapter I A bibliometric analysis of the topic on the economics of migration

From its effects on wages and employment or innovation, immigration plays a tremendous economic and political role in the destination countries and the origin areas. Many studies, including Borjas (1999), Portes (2019), Buckles (2019), Bodvarsson and Berg (2013), etc. are focusing first and foremost on the economic causes and effects of immigration. Although the importance of the economic perspective on this issue is indisputable, lately further attention has been addressed from a socio-cultural perspective. Thus, the focus moved from studies with a purely economic perspective to a more inclusive one, encompassing also cultural aspects of migration. Such studies have developed mostly in the past decades and refer to the importance of language (Adserà, 2015), civic participation (Aleksynska, 2011), the role of family (Alesina & Giuliano, 2010), cultural norms (Giuliano, 2007b), cultural goods (Lanati & Venturini, 2018a), political institutions (Tabellini, 2010) on migration decision.

This change of focus to an inclusive perspective was shaped by the interplay between migration and internationalization. This relationship depends on several factors, such as migrants' characteristics (age, education, skills), type of migration (labor migration, refugees), country characteristics (development level, institutional framework, culture, demography), and industry characteristics and it has been proven that migration fosters better trade, investment, and technology at the international level. In this sense, the literature mentions two instruments through which migration affects trade: the preference mechanism and the foreign market and contact mechanism, both of them increasing the demand for imported goods from immigrants' source regions (Hatzigeorgiou & Lodefalk, 2018). Furthermore, the latter mechanism includes three ways in which immigrants lower transaction costs: by improving communication between origin and destination countries, by spreading knowledge of products, preferences, etc. about the origin countries, and by inspiring trust in trade relations.

Besides its effects on trade, migration encourages internationalization through other significant factors. These may include the mobility of skilled migration, the role of migration to alleviate demographic transitions, the conducive role of migration on natives, and aggregate prosperity in the long run. Another element of internationalization is linked to migrations' impact on innovation, this fact is proven through their tendency to be concentrated in the most innovative areas of the economy, their disproportionate innovative contributions (issuing more patents and as entrepreneurs), the second-order effects on innovation based on diversity (for example, the mobility of skilled and unskilled migrants contributes to higher productivity by increasing specialization across the economy) and through global awareness, spotting new global opportunities and potential innovations (Boyle, 2018). Lastly, but not least, another more subtle component of internationalization is associated with migrations' civic and societal impact, for example through networking and by supporting the participation of native women in the economy.

The reason for choosing this topic stems from the increased number of publications on the field of economics of migration. In this context, this section aims to offer a consistent picture of the structure of the interrelated fields of economics and migration and other closely related subfields, such as culture. We assume that the evolution of this field registers an ascending trend, this meaning that, over time, the number of publications on this topic increased significantly. A secondary objective is to identify types of networks (researchers, journals, terms, and countries) related to this topic. To our knowledge, this is the first bibliometric research on the field of economics of migration. The analyses presented here bring answers to the following questions:

- How the number of publications on the topic of "migration" and "economics" has evolved in time? Which are the main languages of these publications?

- Which are the main characteristics (research areas, databases, document types, regions, source journals, languages, and institutions) of the cited sources in this field?
- Which are the main networks of researchers specific for the field of economics of migration? Which are the networks of journals/networks of terms and the main network of countries on this research topic?

This section is structured in three subsections: the first one is a general description of the evolution of the number of publications on the topics of economics and migration before and after the 2007-2008 crisis and an analysis of their top languages in three databases: Web of Science, Scopus and EconLit. The second subsection includes two citation analyses on two topics: the first one on "national culture and migration" and the second one on the topic of "migration and economics" using citation reports from Web of Science database. The third part consists of four analyses of bibliometric networks on 1.188 publications on the topic of "economics and migration" exported from Web of Science Core Collection for the period 1958-2021 using VOSviewer software. These analyses consist of a bibliographic coupling network of researchers, a co-citation network of journals, a co-occurrence network of terms and a citation network of countries. The last part presents some concluding remarks.

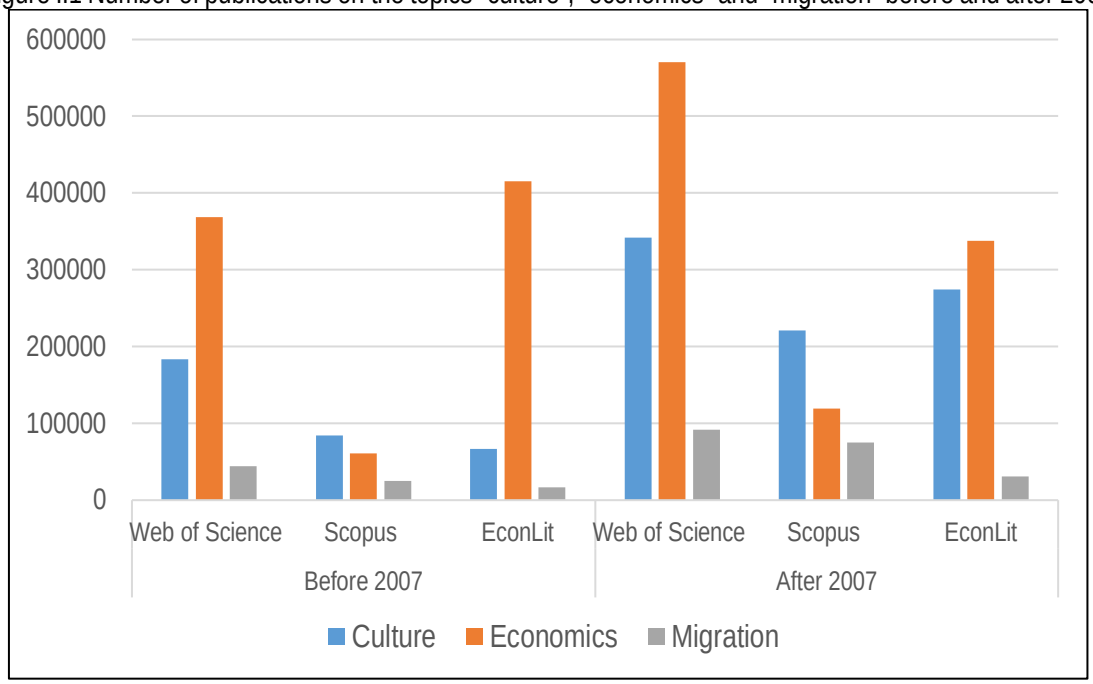
1. General description

1-1 Publications on topics related to culture, migration, and economics before and after the 2007 crisis

The below figures indicates the number of publications on Web of Science, Scopus and EconLit refined by the research domain "social sciences" for the periods before and after 2007. As Figure I.2 shows, there was a notable increase of publications on topics of "culture", "economics" and "migration" after 2007 in Web of Science and Scopus databases. After 2007, the only decrease in the number of publications was registered on EconLit on topics on economics.

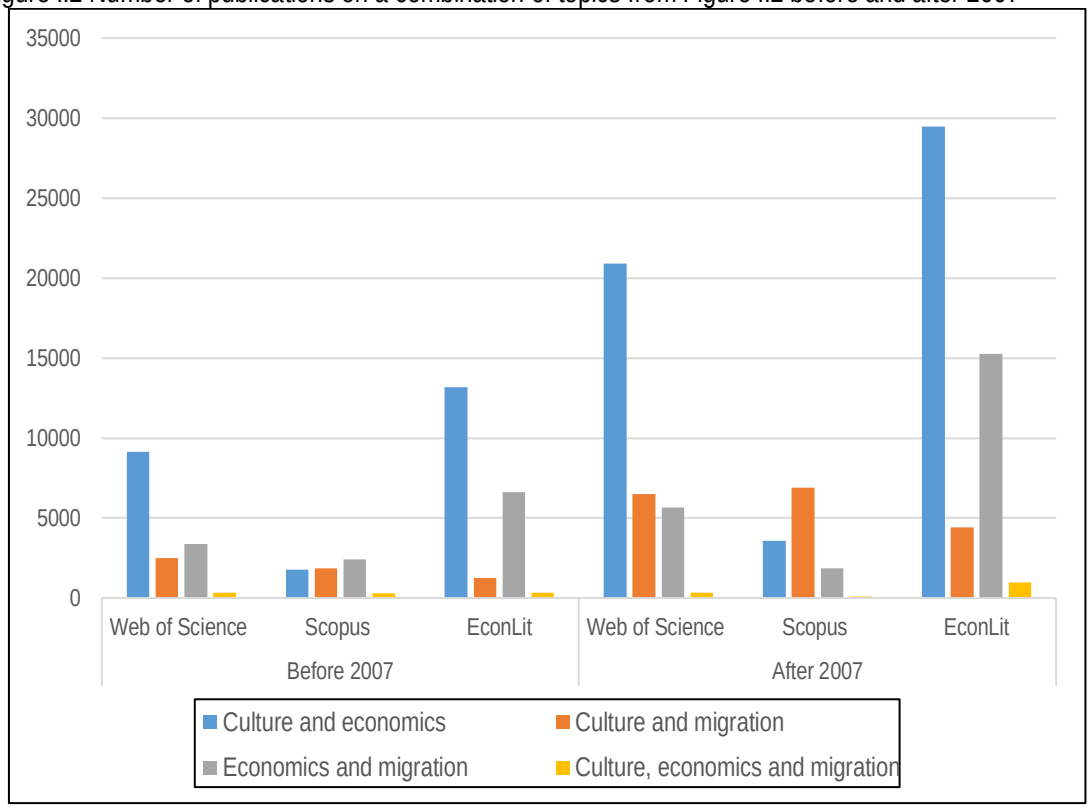
Furthermore, the publications on the combinations of the topics "culture", "economics" and "migration" before and after 2007 are presented in Figure I.3. Comparing the three databases, the largest increase of publications on the topic of "culture and economics" was registered on EconLit after 2007. In addition, the number of publications on the topic of "culture and migration" increased on the Scopus database after 2007. Notably, the publications on the topic of "culture, economics and migration" have more than doubled after 2007 especially on EconLit database. Also, the number of publications on the topic "economics and migration" increased on Web of Science and, even more, on EconLit.

Figure I.1 Number of publications on the topics "culture", "economics" and "migration" before and after 2007



Source: own elaboration.

Figure I.2 Number of publications on a combination of topics from Figure I.2 before and after 2007



Source: own elaboration.

1-2 Top languages of publications on topics about culture, economics, migration and their combined topics

Another descriptive part looks at the top languages in which these publications have been written. Table I.1 shows the number of publications by each topic mentioned above: topics related to “culture”, “economics” and “migration” and their combinations refined by the research domain of “social sciences” in Web of Science, Scopus, and EconLit for the period 1900-2021.

All the figures from this section indicate without a doubt that English is the predominant language for all the topics analyzed here. Furthermore, when comparing the top languages for each field, several differences are observed. For example, when analyzing the top languages of publications on the topic "culture" on different databases, on Web of Science, the following predominant languages are Korean, Russian, and Spanish; on Scopus, the top languages used are Spanish, Russian, and French and on EconLit, the top languages are Spanish, Portuguese and Russian.

In the case of publications on "economics", English maintains the top position in all three databases, but French, Spanish and German follow it on the Web of Science database. On Scopus, Russian, French and Spanish follow it; and on EconLit Spanish, Russian, and Turkish follow it.

Table I.1 Top languages of the publications refined by different topics in Web of Science, Scopus, and EconLit (timespan: 1900-2021)

	WoS		***Scopus***		***EconLit***	
	Language	**No.**	**Language**	**No.**	**Language**	**No.**
Culture	English	366,137	English	282,504	English	266,792
Culture	Korean	19,976	Spanish	5,720	Spanish	3,761
Culture	Russian	14,221	Russian	4,588	Portuguese	1,426
Culture	Spanish	13,097	French	4,375	Russian	1,150
Economics	English	750,409	English	173,126	English	1,029,102
Economics	French	14,246	Russian	2,242	Spanish	14,668
Economics	Spanish	13,070	French	1,472	Russian	6,056
Economics	German	9,428	Spanish	1,250	Turkish	4,510
Migration	English	105,878	English	89,734	English	50,827
Migration	Spanish	4,256	Spanish	2,273	Spanish	1,003
Migration	Russian	3,111	French	1,924	Russian	146
Migration	French	1,777	Russian	1,257	Turkish	139
Culture and economics	English	24,664	English	4,954	English	39,283
Culture and economics	French	648	Russian	128	Spanish	853
Culture and economics	Spanish	630	Spanish	64	Portuguese	341
Culture and economics	Portuguese	406	French	56	Turkish	270
Culture and migration	English	6,634	English	7,976	English	4,674
Culture and migration	Russian	468	Russian	178	Spanish	85
Culture and migration	Spanish	208	Spanish	145	Turkish	24
Culture and migration	Korean	184	German	103	French	17
Economics and migration	English	7,584	English	3,808	English	20,667
Economics and migration	Spanish	189	Spanish	116	Spanish	392
Economics and migration	French	179	French	94	Russian	144
Economics and migration	Unspecified	124	Russian	86	Turkish	99
Culture, economics and migration	English	549	English	335	English	1,198
Culture, economics and migration	Unspecified	17	Italian	12	Spanish	25
Culture, economics and migration	French	14	Spanish	12	Turkish	14
Culture, economics and migration	Spanish	14	Russian	8	Russian	6

Source: own elaboration.

Table I.1 indicates also the top languages of the publications with the topic "migration". Again, besides English, on Web of Science, the top languages used are Spanish, Russian and

French; on Scopus, the top languages are Spanish, French, and Russian and on EconLit, the top languages are Spanish, Russian and Turkish.

The top languages for the topic "culture and economics" are French, Spanish, and Portuguese on Web of Science; Russian, Spanish, French on Scopus, and on EconLit Spanish, Portuguese and Turkish. Looking at the top languages for the topic "culture and migration" besides English, on Web of Science, the top languages are Russian, Spanish, and Korean, on Scopus Russian, Spanish and German, and EconLit Spanish, Turkish and French. The top languages for publications on "economics and migration" maintain the same rank: English, Spanish, French, and Russian. Furthermore, when looking at the publications on the topic of "culture, economics and migration" the top languages on Web of Science are English, French, Spanish; on Scopus, besides English, there are also Italian, Spanish, and Russian publications, and, lastly, on EconLit besides English and Spanish, there are also Turkish and Russian publications.

This section proves that English is undoubtedly the predominant publication language in all these three databases. Secondly, different patterns of top publications' languages can be detected. For instance, on Web of Science, Spanish and French are the main languages for all the topics. On Scopus, the main languages are Russian, French, and Spanish. Finally, on EconLit, the top languages are having a higher variability among topics; still, the predominant ones are Spanish, Turkish and Russian.

2. Citation analyses

The second part of the research explores the main characteristics (research areas, databases, document types, regions, source journals, languages, and institutions) of the cited sources of the publications on the topic of the economics of migration. To put it into perspective, these cited sources were compared with the ones of the publications on the topic of "migration" and "national culture".

The citation analyses are centered on several aspects: the total number of publications, the h-index, the average citations per item, the sums of times cited, and the number of the citing articles. The value of the *h*-index is based on a list of publications ranked in descending order by the count of the times cited. An index of *h* means that there are *h* papers that have been each cited at least *h* times (Ruccolo, 2020). The average number of citations per article is the average number of citing articles for all items in the result set. It is calculated as the sum of times cited count divided by the number of results in the set. The sum of times cited is the total number of citations to all items in the result set and the number of citing articles is the total number of citing articles. For instance, Table I.2 presents all the above-mentioned indicators for searches on two topics: one topic referring to "national culture and migration" and the other one on "economics and migration". For instance, in the first case, an h-index of eight means that eight papers have been cited at least eight times, and, for the second case an index of 148 indicates that 148 papers have been each cited at least 148 times. A more detailed description of these two searches is presented in the below subchapters.

Table I.2 Resume of citation analysis for the two searches

Topic	*Total publications*	*h-index*	*Average Citations per Item*	*Sum of the Times Cited*	*Citing articles*
Migration and national culture	87	8	4.49	391	388
Economics and migration	7,752	148	20.68	160,324	118,030

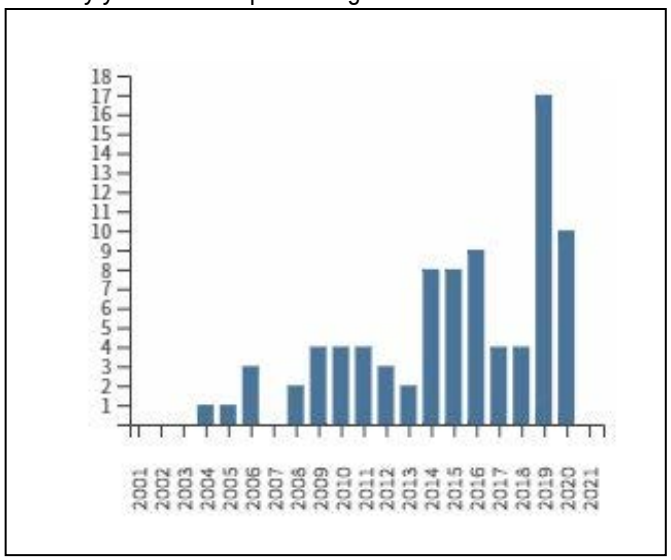
Source: own elaboration.

2-1 Citation analysis on the topic of migration and national culture

The citation analysis from Table I.2 is based on citation reports from Web of Science. The citation reports refer to publications about migration and national culture in all databases (except for MEDLINE) for the timespan 1990-2021. The results indicate that there are 87 total publications, with an h-index of eight, and the average citations per item is 4.49. For this set of 87 publications, there are 388 citing articles. The sum of times cited by year is represented in Figure I.5, and as it can be seen, it has an ascending trend from 2014 to the present.

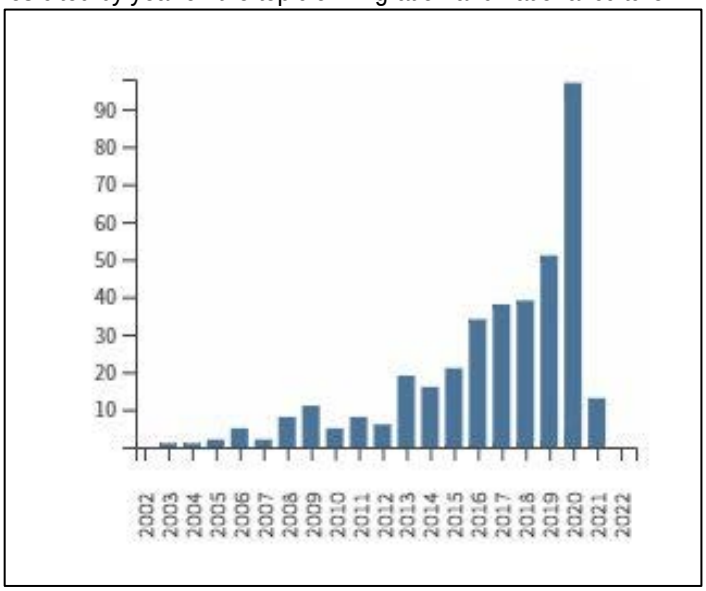
The analysis of the citing articles indicates that the top research fields in which these articles are published are business economics, geography, environmental science, social sciences, and sociology. Out of 388 citing articles, 360 are from Web of Science Core Collection, followed by 163 in CCC (Current Contents Connect), 20 in Medline, and a few were published in RSCI (Russian Science Citation Index), in SCIELO, and KJD (Korean Journal Database). Regarding the document types, the majority of them are articles (304), books (50), reviews (28), and editorials (26). The classification of citing articles by regions indicates that 89 citing articles are from England, 68 from the USA, 28 from Australia, 21 from the Netherlands, and 17 from Germany. The top five source journals are *Production Planning Control, Ethnic and Racial Studies, International Journal of Consumer Studies, Journal of Ethnic and Migration Studies, Mobilities*. The top languages of the citing articles are English (349), Russian (13), Spanish (5), and Portuguese (3) and the top five institutions are the University Of London, University Of Hull, University Of Southampton, Durham University, and Monash University.

Figure I.3 Total publications by year on the topic of “migration and national culture”



Source: WOS citation report.

Figure I.4 Sum of times cited by year on the topic of "migration and national culture"

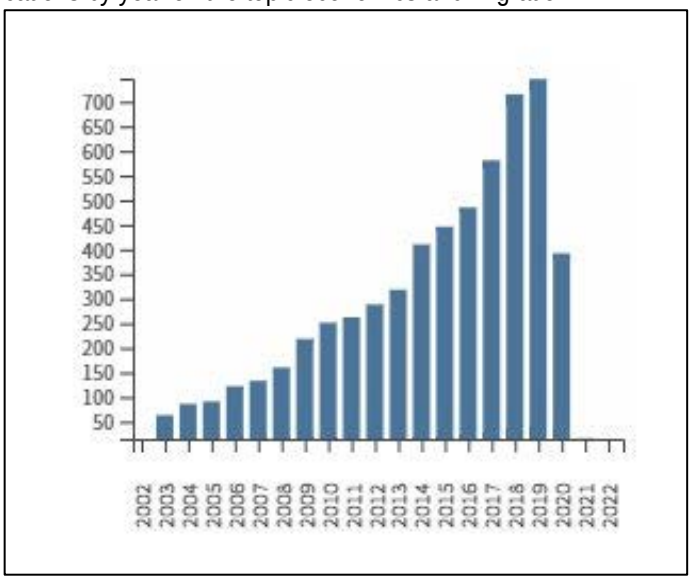


Source: WOS citation report.

2-2 Citation analysis on the topic of economics and migration

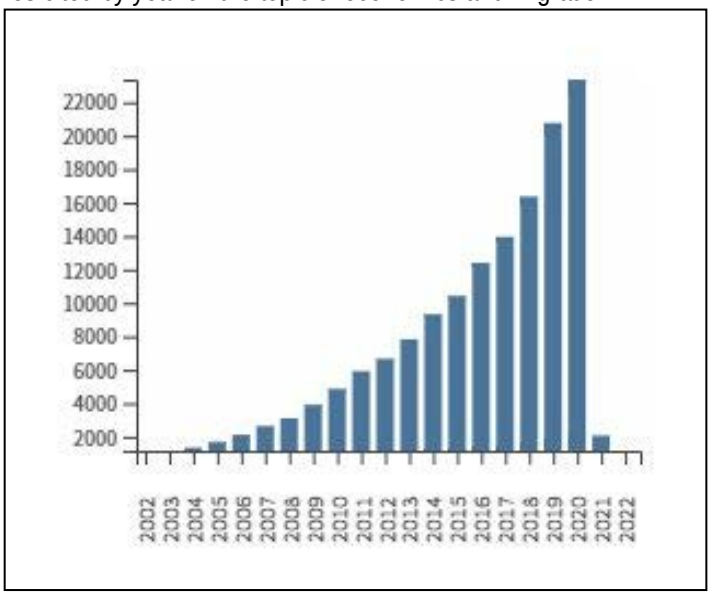
The second citation analysis is on the topic of "economics and migration" and is based on a citation report from Web of Science on the number of publications on "migration and economics" refined by the research domain "social sciences" for 1990-2021. The results indicate that there are 7,752 total publications (Table I.2), with an h-index of 148 and the average citations per item is 20.68. For this set of 7,752 publications, there are 118,030 citing articles. The total number of publications by year is presented in Figure I.6, and the sum of times cited by year is presented in Figure I.7. As it can be seen, there is an ascending trend in the last decades, indicating the increased interest in this topic.

Figure I.5 Total publications by year on the topic economics and migration



Source: WOS citation report.

Figure I.6 Sum of times cited by year on the topic of economics and migration



Source: WOS citation report.

The analysis of the citing articles indicates that the main research areas are environmental sciences, business economics, geography, sociology, and biodiversity conservation. Regarding the source databases of the citing articles, 98% are from the Web of Science Core Collection, followed by CCC (69%) and Medline (30%). In respect to the document type of the citing articles, 103,960 are articles, followed by reviews (9,396) and books (6,945). When classifying the citing articles by countries, 33% are from the USA, followed by England (12%), China (11%), Australia (7%), and Germany (6%). The top source journals are *Sustainability, Plos One, Land Use Policy, Science Of The Total Environment and International Migration Review*. The top languages of citing articles are English, Spanish, French, Portuguese, and German. The top institutions of the citing articles on the topic of economics and migration are the University of California System, University of London, The Chinese Academy of Sciences, State University System of Florida, and Harvard University. Table I.3 summarizes the comparative analyses of the citing articles in respect to research areas, databases, document types, regions, source journals, languages, and institutions for the two topics mentioned in this section.

Table I.3 Comparative analysis of the citing articles for the publications on two topics in Web of Science

Categories/Topics	*Migration and national culture*	*Economics and migration*
Research areas	• Business economics • Geography • Environmental sciences • Social sciences • Sociology	• Environmental sciences • Business economics • Geography • Sociology • Biodiversity conservation
Databases	• WOS, CCC, MEDLINE, KJD, RSCI, SCIELO.	• WOS (109,788), CCC (76,502), MEDLINE (33,908), SCIELO, RSCI, KJD.
Document type	• Article • Book • Early Access • Review • Editorial	• Articles (103,960) • Reviews (9,396) • Books (6,945)
Countries/regions	• England (89) • USA (68) • Australia (28)	• USA (36,205) • England (12,987) • China (12,674)

	• Netherlands (21) • Germany (17)	• Australia (7,823) • Germany (7,054)
Source journals	• Production Planning Control • Ethnic and Racial Studies • International Journal Of Consumer Studies • Journal Of Ethnic And Migration Studies • Mobilities	• Sustainability • Plos One • Land Use Policy • Science Of The Total Environment • International Migration Review
Languages	• English (349) • Russian (13) • Spanish (5) • Portuguese (3)	• English (108,182) • Spanish (2,453) • French (1,214) • Portuguese (646) • German (481)
Institutions	• University Of London • University Of Hull • University Of Southampton • Durham University • Monash University	• University Of California System • University Of London • The Chinese Academy Of Sciences • State University System Of Florida • Harvard University.

Source: own elaboration.

3. Bibliometric networks

To answer the questions regarding the types of networks, the present analysis is focusing on the bibliometric networks related to the field of economics of migration. Therefore, this section is based on 1.188 publications on this topic exported from the Web of Science Core Collection (2020) for the period 1958-2021 using VOSviewer software (2020). Nodes and edges form a bibliometric network (Van Eck & Waltman, 2014). Examples of nodes are publications, journals, researchers, keywords, etc., while the edges indicate the type of relationships between nodes. Examples of edges are citation analysis, co-authorship relations, key-occurrence relations, etc. Giving its popularity for mapping and visualizing science, we employed VOSviewer as the primary analysis tool. VOSviewer is based on a distance-based approach, meaning that nodes are positioned so that the distance between them indicates the relatedness of the nodes (Van Eck & Waltman, 2020). In general, the lower the distance between nodes, the higher their relatedness. The following subsections present four analyses for the following networks: researchers, journals, terms, and countries.

3-1 Bibliographic coupling network of researchers

In a bibliographic coupling analysis, the relatedness of the items is determined based on the number of references they share. In the visualization from Figure I.8, each circle represents a researcher. Large circles represent researchers that have many publications, and small circles represent researchers with only a few publications. In general, the closer the two researchers, the stronger their link (based on bibliographic coupling). In other words, researchers that are located close to each other tend to cite the same publications. In contrast, researchers that are located far away usually do not cite the same publications.

Colors indicate clusters of researchers that are relatively strongly related to each other. For this case, there are 28 researchers with the greatest total link strength and VOSviewer grouped them in six clusters. In the first cluster, the red one, there are 14 researchers, among whom are the

following: Demurger Silvie, Dustmann Christian, Falco Chiara, Stark O., Hatton Timothy, etc., the second cluster is green and it contains four researchers: Gassmann Franziska, Siegel Melissa, Vanore Michaella, and Waidler Jennifer. The third cluster is the blue one (upper left part in the visualization from Figure I.8) and it contains the following authors: Boboc Cristina, Driouchi Ahmed, and Zouag Nada. The fourth one is yellow and it contains the following authors: Massey Douglas and Riosmena Fernando. The purple cluster contains Hein de Hass and Tineke Fokkemaa and the last cluster, turquoise, contains two researchers Amelie Constant and Klaus Zimmermann. A visualization of the largest cluster (Cluster 1) is illustrated in Figure I.9.

Figure I.7 Bibliographic coupling network of researchers

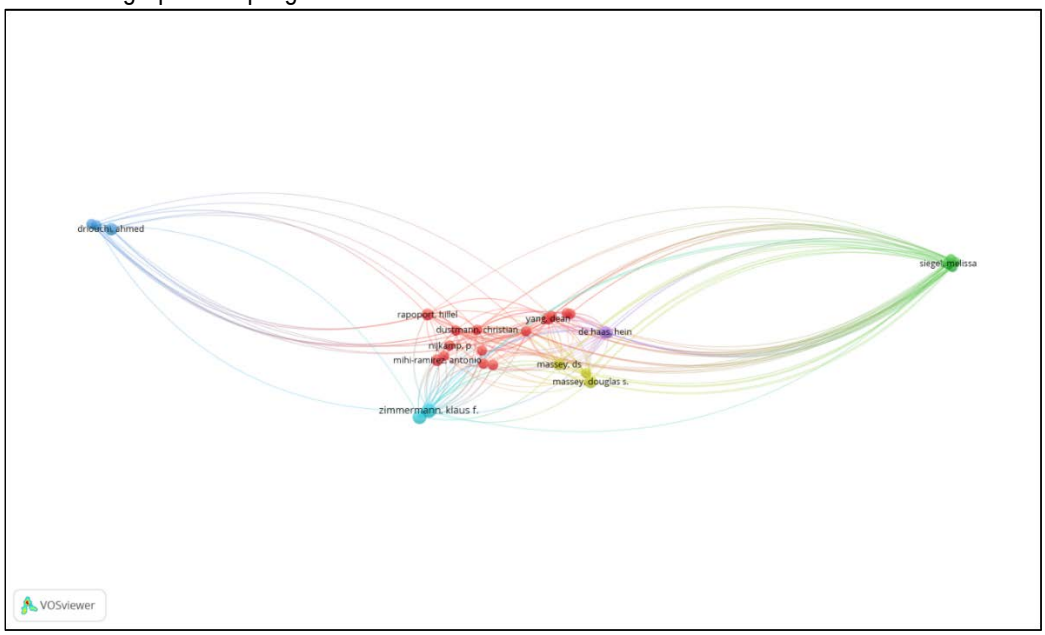
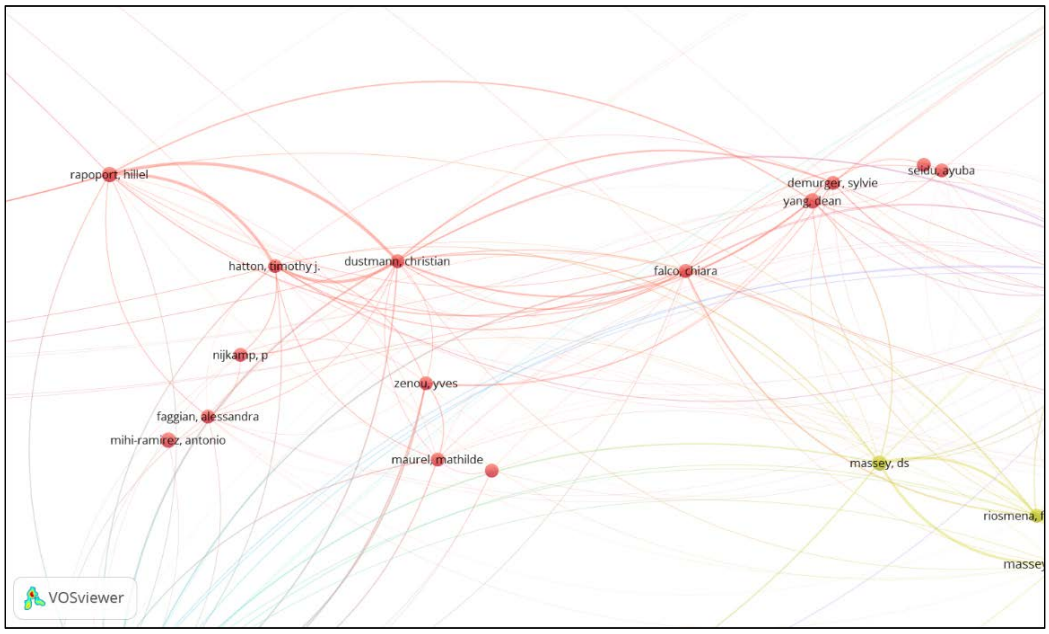


Figure I.8 Visualization of cluster 1



3-2 Co-citation network of journals

In the co-citation analysis, the relatedness of the items was determined based on the number of times journals are cited together. The default value is 20 citations, but we set the criterion at 40 citations. This means that a journal can be included in the co-citation network only if in our Web of Science output files there are at least 40 cited references that point to the journal. There turn out to be 119 journals that satisfy this requirement.

Each circle in the visualization from Figure I.10 represents a journal, and its size reflects the number of citations a journal has received. The journals with the higher number of citations are *American Economic Review* (in the visualization appears as "am econ rev"), *Journal of Political Economy* ("j polit econ"), *International Migration Review* ("int migr rev"), *Journal of Development Economics* ("j dev econ") and *World Development* ("world dev"). Based on co-citations, the journals that are located close to each other tend to be more related than journals that are located far away from each other. Two broad groups of journals can be distinguished: journals that publish migration and labor research in the lower-left area of the visualization (colored in green) and journals that publish economic and development research in the right area (colored in red in the visualization). These two groups of journals can also be recognized in the density visualization from Figure I.11.

VOSviewer has identified six clusters of journals, and each of these clusters is colored differently as shown in Figure I.10. Out of these six clusters, only one is small (the one in light blue in the upper right part), containing five journals publishing in management science and management information systems. The cluster in purple color contains 14 journals and publishes research on development studies and cultural change. The cluster in yellow contains 18 journals publishing research on natural sciences. The blue cluster from the below right area consists of journals publishing urban economics and regional science research. The largest clusters were mentioned above and are colored in red, respectively green.

Figure I.9 Co-citation network of journals

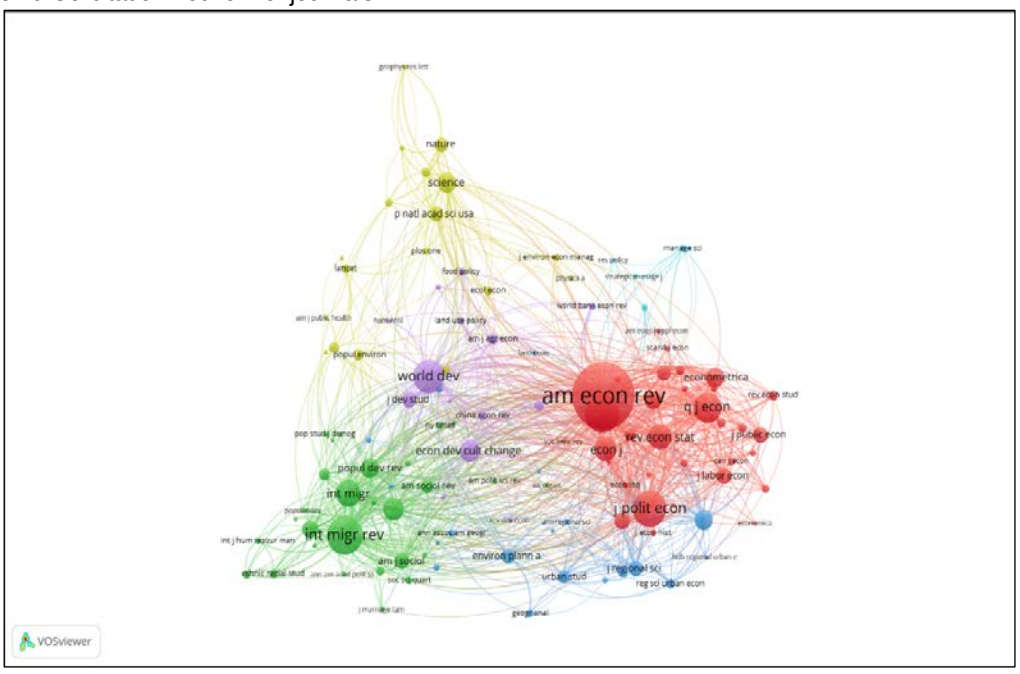
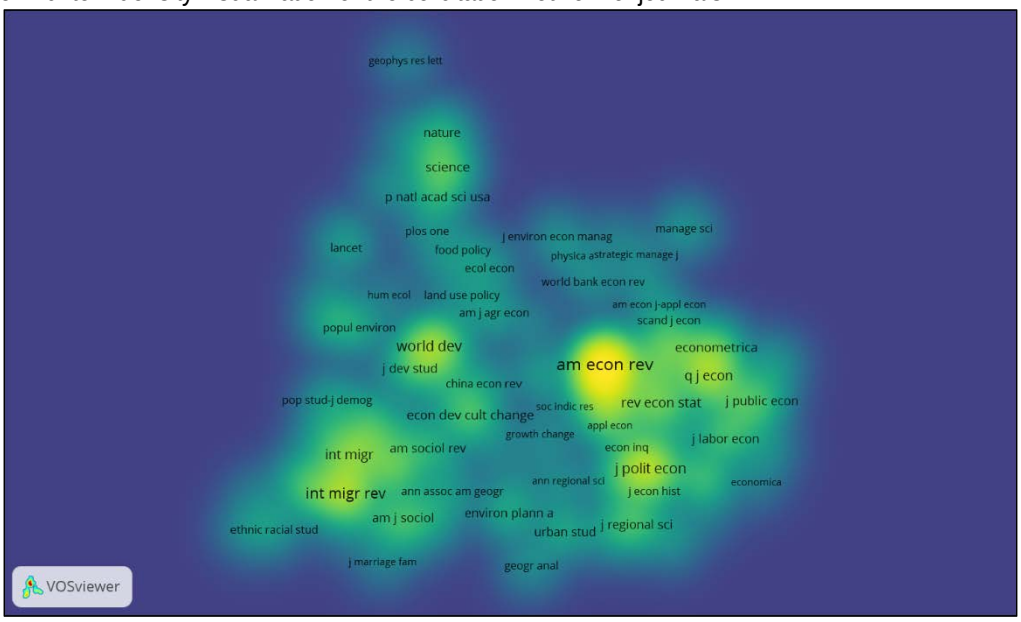


Figure I.10 Item density visualization of the co-citation network of journals



It is interesting to observe how the clusters from the network of researchers are connected with the ones from the network of journals. At a closer look, researchers from cluster 1 (Figure I.9) have connections with the biggest journals. For instance, Christian Dustmann (one of the authors from cluster red with many publications) is the referee for two of the journals from cluster red: *American Economic Review* and *Econometrica*. Also, researcher Sylvie Démurger from the same cluster has publications in the *Journal of Development Economics*. Researchers from other clusters have connections with journals from other clusters, as is the case of the researcher Melissa Siegel (green cluster – Figure 7), who has publications in the journal *International Migration* (green cluster - Figure I.10).

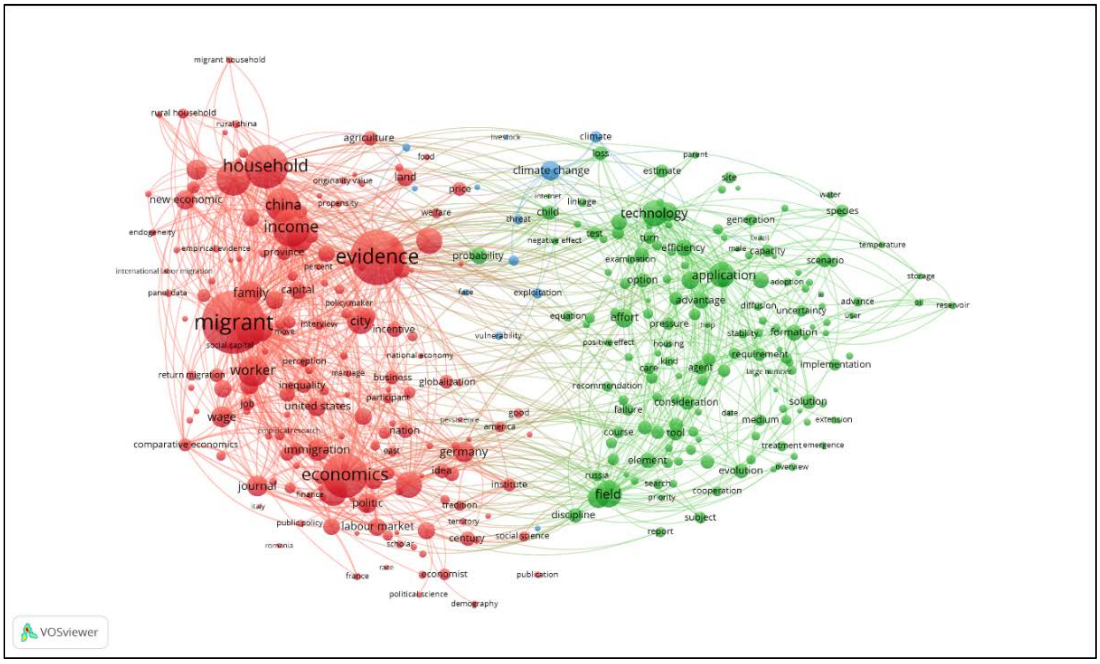
3-3 Co-occurrence network of terms

The co-occurrence network of terms was created through the binary counting method and with a minimum number of ten occurrences, meaning that a noun must have a minimum of ten occurrences to be included in the co-occurrence network. In the construction of the co-occurrence network, there is a possibility to choose between binary counting and full counting. Using the binary counting methodology means that it matters only the presence or the absence of a term in a document; in other words, the number of times a noun appears in the title and the abstract of a publication is not taken into account. On the other hand, the full counting method means that all occurrences of a term in a document are counted.

VOSviewer identified 595 terms that meet this threshold. For each of these terms, a relevance score was calculated, and, based on this score, only the most relevant ones have been selected, that is 357 terms. The top terms with the largest occurrences are *migrant, evidence, economics, household, income, remittances, China, worker, and employment*. In the visualization from Figure I.12, each circle represents a term.

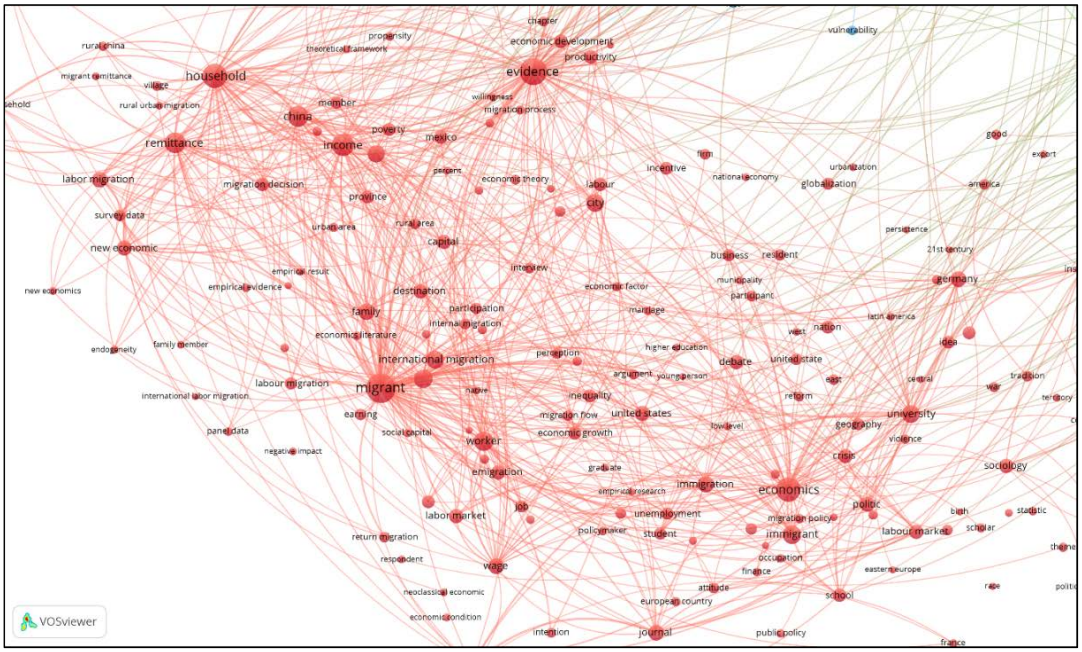
The size of a circle illustrates the number of publications that have the corresponding term in their title or abstract. Terms that co-occur frequently tend to be located close to each other in the visualization. VOSviewer has grouped the terms into three clusters, of which two are of significant size. The smallest cluster is colored in blue and it contains 12 terms related to environmental and climate change, vulnerabilities, and threats. The biggest cluster is the red one and it contains 183 terms: *migrant, evidence, economics, household, remittances, etc.* The second cluster, the green one, contains 162 terms, among which the terms *field, application, technology, efficiency, potential, formation* have the highest number of occurrences.

Figure I.11 Co-occurrence network of terms



As stated in the introduction, a secondary objective of this research is to see how much the socio-cultural factors are represented in the subfield of the economics of migration. In this regard, a cluster of terms related to socio-cultural concepts was expected in the visualization of terms. Unfortunately, there is no cluster with specific cultural terms or even the term “culture”, meaning that on this database, the number of publications about the impact of culture on the field of economics of migration is not significant. Nevertheless, there seem to be several terms related to socio-cultural aspects, such as *family, social capital, social network, perception, inequality, attitude, intention* integrated into cluster number 1 (see visualization from Figure I.13).

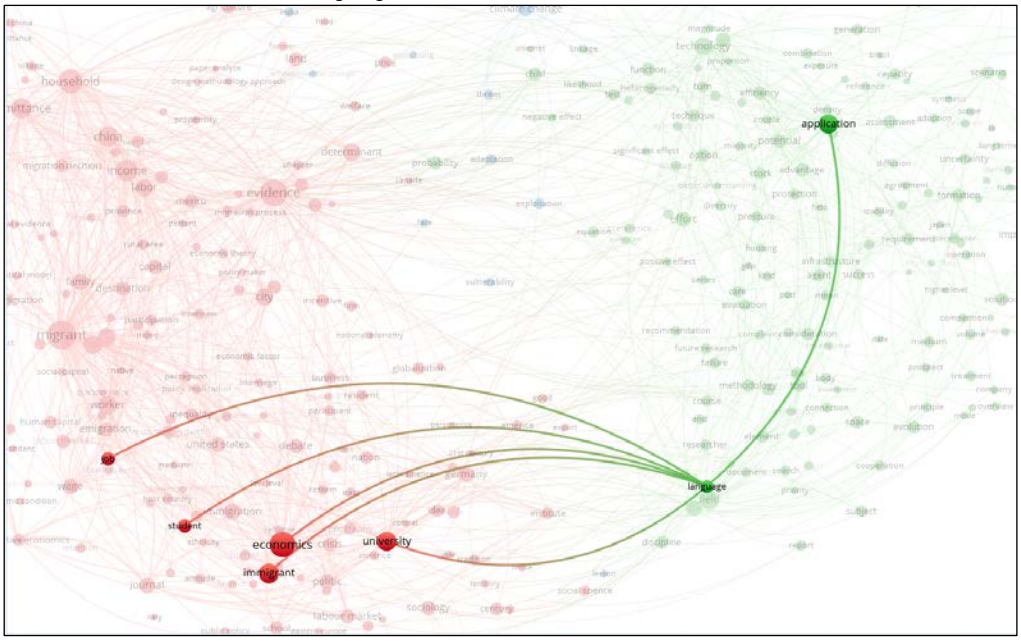
Figure I.12 Visualization of cluster 1 from Figure I.12



The only term strongly related to culture encountered in the visualization from Figure I.12 is “language”. A closer look at this term (see visualization from Figure I.14) indicates a strong link

with the terms: *application, university, immigrant, economics, student,* and *job*. The lines between them act like a bridge between the cluster colored in red and green. This relationship is quite interesting, and it reflects a part of the literature in which a couple of studies are focusing on the impact of culture and language in the field of economics of migration (for further information, please see Mayda (2010), Belot and Ederveen (2012), Adserà (2015a), Adserà and Pytliková (2015).

Figure I.13 Link lines of the term "language"



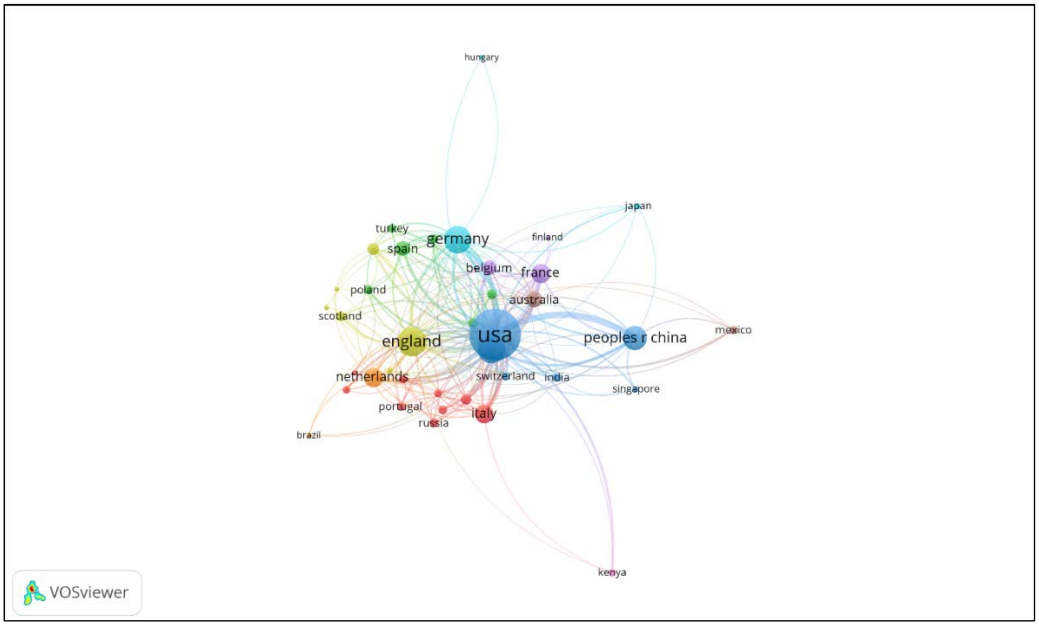
The visualizations from Figure I.8, Figure I.10 and Figure I.12, offer a consistent picture of the structure of the field of economics of migration, especially the visualizations with the network of researchers and the network of journals offer many similar insights.

3-4 Citation network of countries

Lastly, we performed an analysis based on the citation network of countries. In a citation analysis, the relatedness of items (in this case, the countries) is based on the number of times they cite each other. Setting at five the minimum number of documents of a country, VOSviewer identified 39 countries that meet this threshold. For each of these 39 countries, the total strength of the citation links with other countries was calculated.

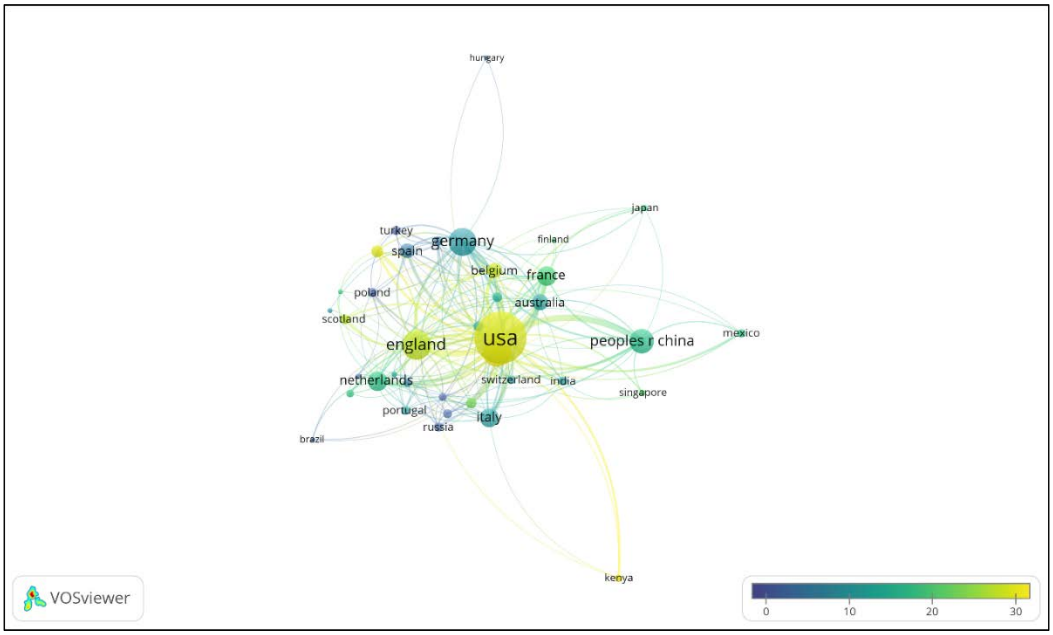
In the visualization from Figure I.15, each circle represents a country and the size of the circle represents the number of citations. The larger the size of the circle, the higher its number of citations. Small circles represent countries with only a few citations. As shown in the visualization from Figure I.15, the countries with the higher citations are the USA, England, Germany, China, Netherlands, France, and Italy. This can also be observed in the visualization from Figure I.16. The scores based on the average citations range from zero (the lowest citation link between countries) to 30 (the highest citation link between countries). For example, Spain has a higher citation link with the US, England, France, and a lower citation link with Poland and Turkey. In general, the closer the two countries are, the stronger their relatedness. In other words, countries that are located close to each other tend to cite each other more, while countries that are located far away from each other usually do not cite each other so often.

Figure I.14 Citation network of countries



VOSviewer grouped the countries in nine clusters: the first one, colored in red in the visualization, contains nine countries: Canada, Czech Republic, Italy, Morocco, Romania, Russia, Slovakia, and South Africa. The second cluster is colored in green and it contains Austria, Norway, Poland, Spain, Sweden, and Turkey. The next cluster is blue and consists of India, Israel, China, Singapore, Switzerland, and the USA. The yellow cluster contains Denmark, England, New Zeeland, Scotland, South Korea, Wales, and the purple cluster contains France, Belgium, and Finland. The blue-green cluster contains Germany, Hungary, and Japan; the orange cluster contains Brazil and Netherlands. Australia and Mexico form the brown cluster, and the last cluster contains Kenya.

Figure I.15 Overlay visualization of the citation network of countries



The citation network of countries can be corroborated with the analysis of the top languages, where the overlay visualization from Figure I.16 confirms the rank on top languages/countries presented in the previous section. In other words, the networks of countries

resulted from the citation links correspond with the top languages and countries from the analysis of the citing articles in Table I.3.

4. Discussion

Starting from the assumption that the field of the economics of migration registered an ascending trend over time, this chapter offers a consistent picture of the structure of the interrelated fields of "economics" and "migration". Given the evolution of the studies on the impact of culture on migration, a secondary objective was to see how much the socio-cultural factors are represented in the subfield of the economics of migration.

The first part was centered on the evolution of the number of publications on the topics of "economics" and "migration" before and after the 2007-2008 crisis and an analysis of their top languages in three databases: Web of Science, Scopus, and EconLit. The results indicate a notable increase of publications on the topics of "migration," "economics," and "culture" after the 2007-2008 crisis, mainly in Web of Science and Scopus databases. A particular interest was on the number of publications on the topic "culture and economics" and on "culture and migration," which have more than doubled in all three databases after the crisis in comparison with the previous period. Regarding the top languages of publications on these topics, the results demonstrate that English is the predominant language in all topics. Furthermore, French and Spanish are the following top languages with variations among databases and topics.

The second part included two citation analyses on two topics: the first one on "national culture and migration" and the second one on "economics and migration" using citation reports from the Web of Science database for the timespan 1990-2021. The citation analyses were centered on the total number of publications, the h-index, the average citations per item, the sums of times cited, and the number of the citing articles. The results confirm the ascending trend of the number of publications on the topic of the economics of migration. The analysis of the citing articles of the publications on this topic shows that the top research areas are environmental sciences, business economics, geography, and sociology and that they originate from the USA, England, China, Australia, and Germany.

The third part consisted of four analyses of bibliometric networks on 1.188 publications on the topic related to "economics" and "migration" exported from Web of Science Core Collection for the period 1958-2021 using VOSviewer software:

- The bibliometric coupling network of researchers identified six clusters of researchers. The biggest cluster has 14 researchers, among whom are the following: Demurger Silvie, Dustmann Christian, Falco Chiara, Stark O., Hatton Timothy, etc.
- The second analysis was a co-citation network of journals, and it shows that the journals with the higher number of citations are "American Economic Review", "Journal of Political Economy", "International Migration Review", "Journal of Development Economics," and "World Development". Furthermore, the journals were grouped in six clusters, in which two broad groups of journals can be distinguished, one group containing journals that publish mainly migration and labor research and another one containing journals that publish economic and development research.
- The third analysis was a co-occurrence network of terms in which only the most relevant ones have been selected (in this case have been selected 357 terms). All 357 terms were grouped into three clusters and the results indicated that the top terms with the largest occurrences were *migrant, evidence, economics, household, income, remittances, China, worker, and employment*. Although expected, unfortunately, there was no cluster with specific cultural terms or even the term "culture", meaning that in this database the number of publications about the impact of culture on the field of economics of migration is not so significant. Nevertheless, there seem to be several terms and links related to socio-cultural

aspects, such as *family, social capital, social network, perception, inequality, attitude, intention*.

- The fourth analysis was a citation network of countries. It was shown that the countries with the higher citations are the USA, England, Germany, China, Netherlands, France, and Italy. Based on citation links, 39 countries were identified and were grouped into nine clusters. The networks of countries partially mirror the ranking of the top languages (English, Spanish and French) presented in the first section of the chapter.

Reiterating the objectives of this chapter, it can be concluded that, although the field of economics of migration is developing more and more, its structure still indicates a primary focus on the economic component, a fact that can be seen in the abovementioned visualizations. Furthermore, regarding the publications about the socio-cultural impact on the economics of migration, although it has received an increased interest lately, it remains underdeveloped, a fact that is shown in the above visualizations through the lack of specific clusters of journals/researchers or even the presence of the term “culture”.

Although this bibliometric study offers only a descriptive glimpse at the interplay between economics and migration, it can become a constitutive step in creating future thorough analyses. A possible research line is exploring the importance of culture in the economics of migration due to its decisive role in various transdisciplinary research areas. Moreover, understanding how culture influences the economics of migration helps create an accurate picture of migration processes, processes that standstill at the basis of internationalization and long-run economic growth.

Chapter II A new insight into the methodology of cultural economics

In recent years, the question of how far culture should be included in the analysis of economic growth became popular. This concern leads to creating a specific branch, cultural economics, which studies the impact of culture on economic outcomes. The cultural approach to economics copes with the interplay between formal and informal institutions and cultural and cognitive perception (Goldschmidt et al. 2006).

Given that most of the research on this topic uses historical evidence and employs qualitative and mixed research methods, the present chapter aims to enrich its methodology by proposing a valuable quantitative instrument: a cultural matrix based on Hofstede's cultural dimensions theory. After analyzing different computing methods of cultural distance, the most appropriate one seemed to be a weighted composite method. The applicability of the composite measures of cultural distance (unweighted and weighted) was compared in a model explaining Spanish migration flows to 35 OECD countries in 2005–2017. The results partially confirm the findings of other studies, indicating mixed results regarding the relationship between cultural distance and migration flows. This chapter provides new insights by recommending weighted composite measures of cultural distance in economic analyses. Besides, the results highlight the importance of drawing each cultural dimension's weights appropriately, given that inadequate estimations of cultural dimensions' weights can significantly alter the research results and misrepresent the reality.

1. Theoretical aspects

Defining culture is difficult because it is like an umbrella term: it refers to historically transmitted symbols, to a collective set of ideas and values, to norms and social behavior, to customs and habits, to arts and knowledge. This difficulty in defining it poses a challenge in establishing clear relations with other concepts. Despite this fact, the literature review indicates that culture and economics are linked through three different economic branches:

- **Institutional economics** focuses on the impact of institutions on economic behavior. In the literature, examples include the effect of several cultural traits: trust, family ties, history, individualism, and generalized morality on different types of institutions: formal and informal institutions (Wang & Mao, 2019), regulation, and the welfare state (Alesina & Giuliano, 2015).
- **Evolutionary economics** studies economic transformations through actions resulted from experience and interaction. Its focal point is on non-equilibrium economic principles of circular and cumulative development, evolutionary psychology, and evolutionary game theory. At the center of this theory stands the concept of change, and the evolutionary development of culture (viewed as a technological advance) is considered economic progress (Hamilton, 2017).
- **Behavioral economics** focuses on the impact of psychological, social, and cultural factors on individual and collective economic decisions. One of the major theories of this economic branch is the nudge theory. Influenced by principles originated in cybernetics and clinical psychotherapy, nudge theory aims to influence individuals' and groups' behavior by positive reinforcement and indirect suggestions (Thaler & Sunstein, 2008). Major applications of this theory are encountered in corporate culture and business management. Especially in health, safety, environment, and human resources, the principal aim of nudge is to achieve a zero accident culture (Marsh, 2012).

Another branch through which culture interacts with economics is the interdisciplinary field of migration studies. There are three approaches with significant explicative power on migration decisions: sociological, gravitational, and economical.

The sociological approach underlines the relevance of social organization, the role of networks, and family ties. The gravitational approach is derived from regional economics. Within this approach, migration movement is based on ideas from physical science, explained through the forces that attract one region to another. Ravenstein (1885) introduced this approach, through which mobility is the result of attraction forces between the populations of two regions, plus the distance between them. The approach uses aggregated measures based on the following assumptions: the higher the population in two regions (*i* and *j*), the higher the number of persons who migrate from *i* to *j*. Secondly, the number of migrants will decrease by the distance between *i* and *j* and will increase by pull factors in *j* or push factors in *i*. A general representation of the model is presented below:

$$M_{ij} = P_i P_j B_i A_j (D_{ij})$$

Where M_{ij} is the net flow of migrants from *i* to *j*, P_i is the population in region *i*, P_j is the population in region *j*, B_i are the push factors from region *i*, A_j are the pull factors from region *j* and D_{ij} is the distance between region *i* and *j*.

The economic approach makes use of the theory of human capital and its rationale is that individuals consider migration as an investment if it implies a better return on their human capital. In this regard, Table II.1 describes the main economic models of migration choice.

Table II.1 Economic models of migration choice

Model	***Expression***	***Assumptions***
The Human Capital Model (Sjaastad, 1962)	$\mathrm{M} = f\,(W_d - W_o)$ $W_d = \int_0^t Y\, d_e^{-rt}\, dt - C$ $W_o = \int_o^t Y o e^{-rt} dt$ *f* > 0 M = 1,0 M = 1 if $W_d > W_o$ M = 0 if $W_d < W_o$. *M* = the individual's decision to migrate, positive or zero $W_{i\ (i = d,\ o)}$ = the flow of future incomes discounted for the present *r* = the discount rate Y_i = the income in the two areas *C* = the cost of migration.	- Migration choice is considered an investment. - Migration decision comes as a result of income differential (net monetary and psychological cost of the transfer). - Future flows of income that can be earned in the origin and the destination country are compared. -Migration can be permanent or temporary. -Is based on the assumption that employment is immediate.
Expected Income Model (Todaro, 1969)	$EW_d = \int_o^t [\,P_1\, Yd + (1 - P_1) Ydu] e^{-rt} dt$ $EW_o = \int_o^t P_2\, Y o e^{-rt}\, dt$ EW_d = the expected income in the destination region $P_1 Yd$ = the probability (P_1) of getting a job at wage Yd in the destination area	- The migration choice is based on comparing the income earned in the origin area with the expected income in the destination. - The expected income depends on the probability of getting a job and on the probability of receiving unemployment benefits. - The unemployment rate is linked with the probability to find a job.

	$(1-P_1)Ydu$ = the probability *(1−P1)* of receiving unemployment payments *Ydu* EW_o = the expected wage in the origin country P_2Yoe = probability P_2 of getting a job at wage Yo in the origin country.	
Risk Propensity and Risk Aversion (Stark & Bloom, 1985)	U A[1+ R(A)] = q U(A + W)[1 + R(A + W)] + (1 − q)U(A − C)[1 + R(A − C)] *A* = sum of wealth *R* = return of wealth A *U A[1+ R(A)]* = the utility obtained from wealth A and its return R. the right side of the equation = the expected utility of migration, where: *q* = the probability of guaranteeing employment at wage W *(1 − q)U(A-C)* = the probability (*1−q*), in the case of unemployment (*U*), of consuming part C of the person's initial wealth.	- In this case, the family, and not the individual, decide on the migration issue to diversify the sources of income and insure against the risks of a low-income level. - Is based on the concept of risk aversion (behavior attempt to lower the income uncertainty).
Relative Deprivation Model (Stark & Taylor, 1991)	$RD(y) = \int_{y}^{ymax} h\,[1 - F(y)]dz$ *F(y)* = the cumulated income distribution *h[1 − F (y)]* = the perceived unhappiness of the family *y* = family's income *RD(y)* = relative deprivation.	- Assumes that migration results from the level of income compared with the number of persons with a higher income. -Another assumption is that the utility of wealth is changing in society. - The migration decision is considered as an opportunity to improve the relative position (at the individual and family level) in the origin country.
Differences in the Utility of Consumption (Djajic & Milbourne, 1988), (Christian Dustmann, 1995)	$U(W_i, f_i)$ *W* = wage *f* = the localization factor *i* = destination area (*d*) and the origin area (*o*) $U(W_d, f_d)$ = utility function in the destination area $U(W_o, f_o)$ = utility function in the origin area. If $U(W_d, f_d) > U(W_o, f_o)$, migration will take place.	-Uses a utility function by comparing the consumption utility between origin and destination countries. - The function is composed of two elements: consumption and localization. - It is assumed that the wages in the destination area are higher than the ones in the origin area.
Random Utility Model (Domencich & McFadden, 1975)	$U_{kin} = V_{in} + \varepsilon_{kn}$ U_{kin}= the expected utility of the individual *k* who lives in region *i* and wants to emigrate to region *n* V_{in} = the nonrandom element ε_{kn}= the random element.	- It assumes that migration decision is based on a utility function with two elements (variables): the first one is nonrandom and reflects individual preferences; the second one is random and it expresses differences in preferences due to individual idiosyncrasies. - Within this approach, the error term is explicitly defined and its

		form is expressed through logit and probit models. - Two main advantages of using this model are: firstly, the possibility to introduce individual heterogeneity; secondly, the possibility to insert distinct possible destinations.
The Option Value Model (Burda, 1993)	$\frac{D_t}{d+n} > f$ D_t= wage log difference between origin and destination area d = the time discount rate n = expected rate of wage convergence *f* = fixed costs of migration. If the above condition is true, then the worker will migrate.	- Rests on three conditions: the existence of a fixed cost that cannot be recovered; a future uncertainty that cannot be insured and the possibility of waiting without suffering penalties.
The Asymmetric Information Model (Katz & Stark, 1986)	The migration decision is founded on comparing *kWd(£)*with *Wo(£)*, where: *Wd* = the wage in the destination region *Wo* = the wage in the origin region £ = skill level *k* = the discount factor applied to *Wd* (has to be positive and lower than 1) Conditions: $Wd(£) = ro + r£$; $Wo(£) = po + p£$ $ro, po, r, p > 0$ For example, if skill level £ is 0 and if *kWd(0)* > *Wo(0)*, then it is a case of symmetric information, meaning that is beneficial for unskilled workers to emigrate.	- Is based on three assumptions: the assumption that wages are a linear function of skill; the assumption that the wage in the destination country is higher than the one from the origin country and that the worker prefers the origin country (expressed through a discount factor *k* in the function aside).
A Non-Maximization Migration Choice Model (Amrhein & MacKinnon, 1985)	$\beta_i^{kl} = \frac{\left[\sum_{j=1}^{N}(a_{ij}^{l} + s_{ij}^{l})/W_i^{l}\right] - (a_{ij}^{k} + s_{ij}^{k})}{(a_{ij}^{k} + s_{ij}^{k})}$ β_i^{kl} = The level of stress for a person *i* who is living in *k* and is taking into consideration emigrating to *l* Σ = the whole benefit for the person *i* of the job *j* in *k* a_{ij}^{l} = the nonwage benefits that a person *i* has from work *j* in the region *l* s_{ij}^{l} = the wage that a person *i* earns in work *j* in the region *l* W_i^{l} = the number of persons *i* in region *l* a_{ij}^{k} = the nonwage benefits that a person *i* has from work *j* in the region *k* s_{ij}^{k} = the wage that a person *i* earns in work *j* in the region *k*.	- In this case, the migration choice comes as a response to stress, this being understood as a certain threshold made up of ambitions and expectations. - It is assumed that the population contains two types of people: migrants and non-migrants. - The effective number of migrants is assumed to be a function of a difference in perceptions between their actual job and a possible one in the destination area. - Based on the assumption that the expected value of another job is equal to the average of jobs that a worker with similar skills can have in other areas then it is assumed that an emigrant will make a perfect calculation of this value.

Source: own elaboration based on Venturini (2004).

2. Research objective and methodology

The interconnection between culture and economics focuses on the impact of institutions. The impact of actions resulted from experience, interaction, and the impact of psychological and social factors on individual and collective economic behavior. The majority of these analyses use qualitative research methodologies: case studies, grounded theory, ethnography, content analysis, phenomenological, and mixed research methodologies. Thus, the objective of this chapter is to include culture as a valuable quantitative instrument in measuring economic phenomena, including migration processes. To achieve the research objective, a review of the literature is proposed from a methodological point of view.

The bibliometric analysis from Chapter I indicated that the number of scientific publications on the topic of *culture and economics* (refined by the research domain *social sciences*) increased significantly after 2008. Its number increased even more in the last five years. The increased interest in this topic stands as the primary justification for this high number of publications.

Given that a bibliometric analysis is not sufficient since it does not say much about its content, it is necessary to look deeper into the methodological aspects of these studies. According to Fernandez (2008), culture is defined as systematic differences across groups in preferences and beliefs. Taking into consideration the type of data and research method, the studies about the importance of culture on economics can be divided into three categories: **historical evidence, survey-based evidence, and epidemiological evidence.**

The first perspective presents the influence of historical episodes (considered also natural experiments) on economic development. Two noteworthy examples are Greif's insights (1994) and Botticini and Eckstein's paper (2005). The former argues that collectivist versus individualist cultural beliefs shaped different settings of trading institutions in the 11th century in the case of Genoese and Maghrebi traders. The latter presents how a cultural change created the current pattern of Jewish occupational selection. More specifically, the cultural change refers to the reform through which Judaism was not based anymore on sacrifices but on the requisition of each person to read and to teach his family the Torah. Later, with the spread of urbanization, it is explained how Jews had a comparative advantage in the skilled occupations demanded in the new urban centers.

The second approach uses data based on beliefs individuals express through surveys (usually World Value Survey) and correlates it to economic outcomes: savings, trade, exports (Kristjánsdóttir et al., 2019), etc. Examples for this category are Guiso el at. (2003), who shows that religious beliefs are correlated with specific cultural attitudes such as trust in others, government's role, etc. In another study, Guiso et al. (2006) demonstrate that these attitudes are correlated with savings, types of taxation, and trade. Furthermore, Tabellini (2010) studied how culture affects economic development across Europe, focusing on within-country variation in Europe. The attitudes were instrumented with two historical variables: regional literacy and indicators of political institutions. The results demonstrated a strong correlation between culture and regional economic development.

The last approach studies the variation in economic outcomes across different immigrant groups or their descendants with the natives (Constant et al., 2017). The name of this approach comes from epidemiology because it attempts to identify the influence of the environment relative to genes in explaining different "diseases". This approach includes studies about the effect of social capital on economic development (Algan & Cahuc, 2007). Fogli and Fernandez (2005) studied the effect of culture (instrumented through two proxies: past female labor force participation and total fertility rates from the origin country) on fertility and work behavior of women 30-40 years old, born in the U.S., but whose parents were born elsewhere. The study showed that these cultural instruments have a positive and significant explanatory capacity for individual work and fertility outcomes, even after controlling for education and spousal characteristics.

3. Matrix proposal

The content analysis indicates that qualitative methodologies are predominant, surpassing the quantitative ones. Therefore, to offset this imbalance, the present analysis proposes the creation of a cultural matrix. The cultural matrix represents the cultural distance between two countries *i* and *j,* and its theoretical expression is the following:

$$X_{ij}^{n}$$

Where *n* represents cultural dimensions, cultural factors, or any other type of indicator representing cultural characteristics. In this study, the cultural matrix is applied to Hofstede's cultural dimensions, where *n* is *n (1,6)* representing the six cultural dimensions: *power distance index, individualism versus collectivism, masculinity versus feminity, uncertainty avoidance index, long-term orientation versus short-term normative orientation, indulgence versus restraint* (Hofstede et al., 2010). Its expression is the following:

$$\begin{bmatrix} C_{\mathrm{i}}n_1 & \cdots & C_{\mathrm{i}}n_6 \\ \vdots & \ddots & \vdots \\ C_j n_1 & \cdots & C_j n_6 \end{bmatrix}$$

Where $C_{i\ldots j}$ is country id and $n_{1\ldots 6}$ are Hofstede's cultural dimensions. For example, a resulting matrix applied to the case of Spain compared with Belgium, Bulgaria, and the Czech Republic for all six Hofstede cultural dimensions is represented below. The scores for each cultural dimension can take values from 0 to 100 (Hofstede Insights, 2020), and this example is based on the values resulted from resting the values specific for Spain from the ones specific for the other three countries.

$$\begin{bmatrix} -8 & -24 & -12 & -8 & -34 & -13 \\ -13 & 21 & 2 & 1 & -21 & 28 \\ 0 & -7 & -15 & 12 & -22 & 15 \end{bmatrix}$$

The above matrix is just one example of a cultural matrix used in quantitative analysis studying economic outcomes. The matrix can be applied to other countries. The distances can be calculated in different ways, such as based on a country-specific aggregate indicator of culture, relative to the mean of the sample, based on the Euclidian distance, etc. A comparison between different computing methods of cultural distance is presented in Table II.2[1]. As indicated in the below table, the last method (M_4) seems to be the most appropriate for computing the cultural distance. Nevertheless, one of its disadvantages rests in its assumption that all dimensions are equally important to the outcomes. Therefore, to avoid this issue, a solution is to assign weights to each cultural dimension, and, in this case, the distance between each pair of countries will be computed using the expression:

$$wdist_{C_{\mathrm{i}}C_j} = \sqrt{w_1(C_{in_1} - C_{jn_1})^2 + w_2(C_{in_2} - C_{jn_2})^2 + \cdots + w_6(C_{in_6} - C_{jn_6})^2}$$

Where $w_1 \ldots w_6$ are dimensions' specific weights. Since there is no reference to such weighted instrument in the literature, their values must be created using other techniques.

[1] Appendix A presents four numeric examples corresponding to each computing method of cultural distance.

Table II.2 Comparison between different computing methods of cultural distance

*Method**	*Expression*	*Advantages*	*Disadvantages*
M_1- consists of six matrices with *n* rows and *n* columns, so that for each cultural dimension *n* is computed the country distance.	$\begin{bmatrix} dist(n)_{C_iC_i} = 0 & \cdots & dist(n)_{C_iC_j} \\ \vdots & \ddots & \vdots \\ dist(n)_{C_jC_i} & \cdots & dist(n)_{C_jC_j} = 0 \end{bmatrix}$	Provides specific distances for each dimension.	Does not provide an aggregated indicator of all dimensions.
M_2 – consists of a matrix with *n* rows and *n* columns, where the main diagonal is made of zeros.	$\begin{bmatrix} dist(a.i.)_{C_iC_i} = 0 & \cdots & dist(a.i.)_{C_iC_j} \\ \vdots & \ddots & \vdots \\ dist(a.i.)_{C_jC_i} & \cdots & dist(a.i.)_{C_jC_j} = 0 \end{bmatrix}$ *$(a.i.)$ stands for aggregated indicator.	Presents the advantage of providing only one value for the cultural distance between countries.	May raise questions regarding the type of aggregated measure used and the meaning of the value in real terms.
M_3 – results in a matrix with *n* rows and six columns, where each element will be the absolute value of the difference between each country's cultural dimension and each cultural dimension's mean.	$\begin{bmatrix} \lvert C_in_1 - \overline{n_1}\rvert & \cdots & \lvert C_in_6 - \overline{n_6}\rvert \\ \vdots & \ddots & \vdots \\ \lvert C_jn_1 - \overline{n_1}\rvert & \cdots & \lvert C_jn_6 - \overline{n_6}\rvert \end{bmatrix}$	The interpretation of the distances' values is relative to the mean.	The result will be only one distance matrix relative to the mean for each dimension and information regarding the position of the country to the mean is lost.
M_4 – consists of a matrix of *n* rows and *n* columns, where the distance between each pair of countries is computed using the formula: $dist_{C_iC_j} = \sqrt{(C_{in_1} - C_{jn_1})^2 + (C_{in_2} - C_{jn_2})^2 + \cdots + (C_{in_6} - C_{jn_6})^2}$	$\begin{bmatrix} e.d._{C_iC_i} & \cdots & e.d._{C_iC_j} \\ \vdots & \ddots & \vdots \\ e.d._{C_jC_i} & \cdots & e.d._{C_jC_j} \end{bmatrix}$ * $e.d.$ stands for Euclidean distance.	The distance is computed from the coordinates of the six dimensions in space, and it uses all the available information.	It assumes that all dimensions are equally important to the outcomes.

* Examples of these four methods can be found in Appendix A.

Source: Author's elaboration.

4. Application

The last method of computing cultural distance has many applications, especially when studying migration issues. To compare the two composite measures of cultural distance, the unweighted method with the weighted one, three OLS regressions will be run using Stata. Adapting White and Buehler's gravity model (2018), the model proposed in this study has the following specification:

$$FLOW_{ij} = \alpha_0 + \beta_1 CD_{ij} + \beta_2 GDP_{ij} + \beta_3 Un_{ij} + \beta_4 Pop_{ij} + \beta_5 D_1 + \beta_6 D_2 + \beta_7 D_3 + \beta_8 Dist_{ij} + \beta_9 Stock_{ij} + \varepsilon_{ij} \quad (1)$$

The above model is used to estimate the factors influencing migration flows from Spain to 35 OECD countries during 2005-2017. The dependent variable ($FLOW_{ij}$) is the number of persons migrating from Spain (denoted source country *i*) to 35 OECD countries (each one being denoted destination country *j*) in natural logarithm. The first independent variable(CD_{ij}) represents the cultural distance between each pair of countries (Hofstede Insights, 2020). In the first regression, this variable is computed as in method four described in Table II.2 (unweighted average of the six cultural dimensions) and in the second and the third regressions, the cultural distance is computed using the weighted expression introduced above. In the second regression, the weights of each cultural dimension were computed based on the number of publications in Web of Science and, in the third regression, the weights were computed based on each cultural dimension's standard deviation. Given the importance of the cultural factors, a higher cultural distance between countries is expected to decrease migration flows.

The next independent variables are the ratio of destination-to-source country GDP per capita (GDP_{ij}), the ratio of the destination-to-source country unemployment rate (Un_{ij}) and the product of their populations (Pop_{ij}) in natural logarithm (OECD, 2020b). In this regard, a higher ratio of GDP per capita is expected to attract migration, and a higher ratio of the unemployment rate is supposed to deter migration. Also, a higher product of the source and destinations country' populations is assumed to increase the likelihood of migration between country pairs.

Three dummy variables are included: the first one indicating whether the two countries are contiguous (D_1), another one indicating if they share a common language (D_2) and the third one indicating whether the countries have EU membership (D_3). In this aspect, sharing a border, having a common language and EU membership are expected to positively impact migration flows. The next variable ($Dist_{ij}$) represents the geodesic distance between the countries (CEPII, 2020) and the last independent variable refers to the existent immigrant stock from source country *i* that lived in destination country *j* during the previous year (OECD, 2020a). Geodesic distance is a measure of direct migration costs; therefore, greater geographical distance implies higher migration costs and ultimately may discourage migration flows. Furthermore, the existing immigrant stock from the source country in the destination countries is expected to reduce migration costs related to travel, housing, and employment; therefore it is expected to facilitate larger immigrant flows.

The results of the OLS regressions are following the results of previous studies (Alicía Adserà, 2015b; M. Belot & Ederveen, 2012; Mihai & Novo-Corti, 2020; Roger White, 2013). As shown in Table II.3, all three regressions exhibit similar results. Unexpected, although statistically insignificant, there is a positive relationship between cultural distance and migration flows; in other words, an increase of one unit in the cultural distance, increases the inflows by 2 to 6%, and up to 18% in the second regression. A possible explanation of this result is the high variability in the number of publications about each cultural dimension on Web of Science. For instance, the search on the topic of migration and the cultural dimension entitled "individualism vs. collectivism"

registered the highest number of publications and, the search on the topic of migration and the cultural dimension entitled "indulgence vs. restraint" registered no publications. Therefore, given that the weights attached to each cultural dimension depended exclusively on its number of publications, its high variability affected the final values of the cultural distances from the second regression.

Table II.3 OLS regression results for the Spanish case

	(1)	(2)	(3)
	Ln_flows	Ln_flows	Ln_flows
CD	-0.0113		
	(0.0622)		
CD_WoS		0.0753	
		(0.135)	
CD_stdev			-0.0227
			(0.149)
GDP	4.645	4.659	4.644
	(3.185)	(3.089)	(3.203)
Un	-24.50**	-23.46***	-24.44**
	(8.875)	(7.848)	(8.857)
Ln_Pop	9.359***	9.227***	9.362***
	(1.242)	(1.294)	(1.242)
$1.D_1$	8.323***	8.732***	8.339***
	(2.934)	(2.893)	(2.951)
$1.D_2$	10.83	11.32	10.84
	(6.773)	(6.882)	(6.800)
$1.D_3$	0.602	0.539	0.604
	(2.109)	(1.951)	(2.118)
Ln_Dist	-4.181**	-4.398***	-4.192***
	(1.502)	(1.391)	(1.494)
Ln_Stock	0.392	0.366	0.392
	(0.252)	(0.260)	(0.252)
Constant	-85.95***	-84.98***	-86.05***
	(20.24)	(18.57)	(20.25)
Observations	35	35	35
R-squared	0.802	0.804	0.802

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Furthermore, the findings indicate that an increase in the ratio of destination-to-source country GDP per capita increases migration flows and that an increase in the ratio of destination-to-source country unemployment rate decreases migration flows. With respect to the product of origin and destination country's populations, the findings demonstrate a positive relationship between its populations and migration flows. In other words, if its populations increase by one percent, we would expect migration flows to increase by 9% holding everything else constant.

The results of dummy variables demonstrate that sharing a common border increases migration flows. In addition, sharing a common language and having EU membership has a positive impact on Spanish migration flows. As expected, higher geographical distance between country pairs decreases migration flows; the results indicate that if the geographical distance between Spain and the destination countries increases by one percent, we would expect migration flows to

decrease by approximately 4%. Lastly, the existing immigrant stock in the destination country has a positive impact on migration flows. As expected, although statistically insignificant, the results demonstrate that increasing by one unit the immigrant stock increases future migration flows by approximately 0.39% ceteris paribus.

5. Replications

To see if the above model creates similar results in other case studies, it is worth analyzing its application to other countries. Given the net migration rate, there have been selected the following countries: Germany, Italy, and Romania (in this way, there are two countries with positive net migration rates: Germany and Italy, and two with negative migration rates: Spain and Romania). The econometric model introduced in the previous subchapter was used to estimate the factors influencing migration flows from Germany, Italy, and Romania to 35 OECD countries during the same period as in the Spanish case: 2005-2017. The OLS regression results for these countries are presented in Table II.4.

The results are similar to the ones for the Spanish case. As expected, although statistically insignificant, there is a negative relationship between cultural distance and migration flows, especially for the German and Romanian cases. The results show that when cultural distance is increasing by one unit, the flows decrease by 3% to 6% in the German case and, decrease by 6% to 15% in the Romanian case, cp. Curiously, in the Italian case, two out of three regressions present positive relationships between cultural distance and migration flows, indicating that when the cultural distance increases by one unit, the flows are also increasing by 9% to 19%.

Besides, the findings indicate that an increase in the ratio of destination-to-source country GDP per capita increases migration flows (this relationship is particularly statistically significant in the Italian case). Also, the findings indicate that an increase in the ratio of destination-to-source country unemployment rate decreases migration flows in the German and Romanian case (where the relationship is also statistically significant). An exception is represented in the Italian case, where an increase in the ratio of destination-to-source country unemployment rate increases migration flows.

Regarding the relationship between the product of origin and destination country's populations and migration flows, the findings demonstrate positive statistically significant relationships. In other words, if its populations increase by one percent, migration flows increase by around 5% in the German case, 4% in the Italian case, and 2% in the Romanian case (also proportional to the population size).

The results of the dummy variables show similar results to the ones presented in Table II.3. Therefore, sharing a common border, a common language, and having EU membership increase German, Italian and Romanian migration flows. It is noteworthy to mention that the second dummy variable, the one indicating whether two countries share a common language, presents a statistically significant positive relationship in the Romanian case.

Table II.4 OLS regression results for the German, Italian and Romanian case

	German case			Italian case			Romanian case		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
	Ln_flows	Ln_flows	Ln_flows	Ln_flows	Ln_flows	Ln_flows	Ln_flows	Ln_flows	Ln_flows
CD	-0.0322			0.0967			-0.0624		
	(0.0968)			(0.0676)			(0.0992)		
CD_WoS		0.0114			-0.000747			-0.0762	
		(0.194)			(0.158)			(0.184)	
CD_stdev			-0.0656			0.196			-0.158
			(0.240)			(0.159)			(0.249)
GDP	2.707	2.793	2.731	15.94***	15.27***	15.86***	3.239	3.160	3.232
	(4.790)	(5.082)	(4.808)	(2.729)	(2.871)	(2.723)	(2.305)	(2.262)	(2.309)
Un	-5.371	-5.026	-5.347	11.37**	11.23**	11.40**	-9.715***	-9.049**	-9.772***
	(5.184)	(5.433)	(5.232)	(5.014)	(5.344)	(5.075)	(3.365)	(3.344)	(3.391)
Ln_Pop	4.540***	4.543***	4.525***	3.488***	3.126**	3.469***	1.684	1.809	1.682
	(1.212)	(1.220)	(1.215)	(1.164)	(1.233)	(1.168)	(1.224)	(1.176)	(1.223)
1.D1	-0.396	0.0152	-0.366	7.876	9.097	8.156	5.613	6.671	5.393
	(4.748)	(4.946)	(4.793)	(5.172)	(5.606)	(5.217)	(5.952)	(5.994)	(5.996)
1.D2	0.718	1.417	0.751	7.373	5.632	7.138	12.57***	12.20***	12.88***
	(7.133)	(7.060)	(7.220)	(4.953)	(6.210)	(5.076)	(3.296)	(3.650)	(3.618)
1.D3	5.767	5.323	5.725	1.996	1.212	1.799	6.231	6.572	6.237
	(7.048)	(6.912)	(7.062)	(5.022)	(5.587)	(5.116)	(4.498)	(4.833)	(4.498)
Ln_Dist	-1.054	-1.151	-1.082	1.179	2.027	1.329	-0.706	-0.939	-0.702
	(2.350)	(2.358)	(2.349)	(2.908)	(2.825)	(2.911)	(2.311)	(2.203)	(2.309)
Ln_Stock	-0.295*	-0.283*	-0.295*	0.0273	0.0883	0.0375	0.0752	0.102	0.0738
	(0.163)	(0.159)	(0.167)	(0.156)	(0.185)	(0.157)	(0.215)	(0.212)	(0.215)
Constant	-125.5***	-127.8**	-125.2**	-145.1***	-132.9***	-144.6***	-28.67	-34.98	-28.41
	(44.84)	(46.31)	(45.24)	(33.98)	(35.89)	(33.70)	(40.00)	(39.53)	(39.97)
Observations	35	35	35	35	35	35	36	36	36
R-squared	0.514	0.511	0.513	0.526	0.505	0.521	0.354	0.348	0.354

Source: Author's elaboration

The relationship between the geodesic distance and migration flows is either positive or negative, depending on the country. For instance, in the German and Romanian case, if the geographical distance between country pairs increases by one percent, migration flows decrease by approximately 1% (unit elastic relationship), whereas in the Italian case, one percent increase in the geographical distance between country pairs increases Italian migration flows by 1 to 2%. A possible explanation for the positive relationship in the Italian case may be the significant Italian immigrant stock in long-distance destination countries, such as the United States.

The last relationship, previous migration stocks in the destination country and migration flows, also presents mixed results, indicating negative relationships in the German case and positive ones in the Italian and Romanian case. For example, an increase of one percent of the immigrant stock increases Italian migration flows by approximately 0.03 to 0.08%, cp, and we would expect Romanian migration flows to increase by 0.07 to 0.10%. Surprisingly, if the immigrant stock increases by one percent, German migration flows decrease by approximately 0.3%, cp.

6. Conclusion

Even though the interest in the topic regarding the relationship between culture and economics is increasing, the incursion in this research is in its beginning. The vast literature on the importance of culture on economic outcomes indicates that most of the studies use historical evidence and employ qualitative and mixed research methods. Thus, this chapter aimed to develop a quantitative method by including cultural aspects into the analysis of economic outcomes.

The resulting method is a cultural matrix based on Hofstede's cultural dimensions theory. Creating the cultural matrix supposes computing a cultural distance. By comparing different computing methods of cultural distance, the most inclusive one seemed to be a composite measure. Given that, within the literature, the composite measures of cultural distance are unweighted, the instrument proposed in this chapter is a weighted cultural distance. The applicability of the two composite measures of cultural distance (unweighted and weighted) was compared in a model explaining Spanish migration flows to 35 OECD countries in 2005-2017. The model was replicated for German, Italian and Romanian migration flows for the same OECD countries in the same period.

The results confirm the findings of other studies and, curiously, indicate mixed results regarding the relationship between cultural distance and migration flows. More specifically, the findings indicate a negative relationship between cultural distance and migration flows for the case of an unweighted composite measure of cultural distance and positive/negative ones for the case of a weighted composite measure of cultural distance. Although the model creates similar results in all four case studies, some peculiarities are present in the case of Italian migration flows regarding the cultural distance, the ratio of the destination-to-source country unemployment rate, and the geographical distance. In this case, increases in cultural distance, geographical distance, and in the ratio of unemployment rate increase Italian migration flows. Besides, another peculiarity is found in the German migration flows when studying the impact of previous immigrant stock in the destination country. More specifically, in the German case, increases in previous immigrant stock in the destination country decrease future migration flows.

Therefore, this chapter draws special attention to the modality of setting weights, given that overestimating or underestimating a cultural dimension may distort the results. Overall, the chapter argues in favor of using composite measures of cultural distance, especially the weighted ones, to correctly assess each cultural dimension's importance on the concerned research area.

Chapter III Cultural distance and migration patterns in the EU: The Romanian case

Nowadays, there are more and more studies concerned with the impact of culture on economic behavior. Earlier empirical studies have shown that indicators of cultural proximity are as important as other determinants of migration patterns, such as traditional economic variables (income level, the standard of living, development level, etc.). Nevertheless, none of them focused only on the EU region, nor did they aim to create patterns of migration, starting from the cultural determinant. Trying to fill this gap in the literature, the main goal of this analysis is to explore the influence of cultural distance on migration flows in the EU area to see if there is a model/pattern of general behavior in this regard. The research question is, what the relationship between cultural distance and migration flows is? And the main hypothesis is, when the cultural distance is increasing, migration flows decrease.

This incursion starts by looking for the moment only at the Romanian case due to the following reasons: firstly, Romania has an impressive emigration history, which is categorized into three periods: before communism, when the first large-scale outflows (especially from Transylvania) occurred in the context of the wave of Eastern European migration to North America. Another period is the one during the communist era, when, despite the harsh emigration policy, a relatively high amount of permanent, legal emigration took place under the regime. Lastly, in the period after 1990, the outflows reached historic peaks in the context of travel liberalization and economic transition (for more information regarding the Romanian emigration history, see Horváth (2007) and István (2012). Secondly, Romania is the country that has experienced the biggest increase in emigration among all EU countries since 1990. Due to this fact, Romanian migration represents a tremendous challenge not only for Romania but also for the destination countries. As a continuum, the model that is applied only to Romania can be applied in the future to all EU countries to detect a migration pattern.

To achieve the research objective, a model is created representing the causal relationship between culture and migration. Within this model, the dependent variable is represented by the Romanian migration flows to 27-EU member states (MS), and the independent variable is represented by the cultural distance between Romania and each of these 27-EU's MS. The data for the migration flows were extracted from the World Bank database (The World Bank, 2020) for the decades 1960, 1970, 1980, 1990, and 2000. This exploratory analysis was applied only to this specific period due to data unavailability and because it may be considered a more stable period. In this way, the pre and post-2008 periods were excluded because they may have caused significant fluctuations of migration flows due to economic reasons. If this period had been included, the effect of culture would have been more difficult to be quantified and explained. Along with World Bank data, a cultural distance has been created based on Hofstede's cultural model (Hofstede *et al.,* 2010). The model employs a SEM methodology using Smart-PLS software.

The research from this chapter is relevant for at least three reasons: firstly, it enables our capacity to understand how perception and values influences behavior; in this regard, it looks more deeply into the influence of culture on migration decisions that, in the majority of the cases, are considered to have economic causes. Secondly, acknowledging the tremendous impact of culture on human decisions, this research argues that culture represents a powerful tool for efficiently managing migration flows. Moreover, facilitating specific cultural goods and services may change human perceptions and behavior, leading to a more efficient way of managing human resources. Thirdly, exploring the impact of culture on human decisions (not only in the migration case) has policy-making implications, especially for a sustainable implementation of integration policies.

1. Literature Review

1-1 The Interplay between culture and migration

The vast literature regarding the interaction between culture and migration places culture as one of the most important determinants of people's behavior. Within this literature, several lines of research can be identified; for instance, studies about the role of culture on the mobility of high-skilled workers and the labor force participation rate, others studies focus on the role of family ties on mobility, and there are other studies concerned with the assimilation process of migrants. In the following paragraphs, several studies have been categorized according to their aim. This section's analysis offers valuable arguments to evaluate more thoroughly the impact of culture on migration.

For the first line of research, some examples are Novo-Corti et al. (2019), Picatoste et al. (2018), Ruesga Benito et al. (2018) on sustainable development, and Polavieja et al.'s analysis (2018). In particular, Polavieja et al.'s study (2018) is the first systematic cross-national analysis of migrants' selectivity on achievement-related motivational orientations. To measure orientations, they use a validated scale that combines orientations towards socio-economic success, risk, and money. Their analysis focuses on migrants from nine origin countries sampled at different European destinations. Their findings contradict the common assumption of positive selectivity, the one stating that migrants, in general, come from the upper part of the skill distribution.

The intensified globalization and the mobility of capital lead to vast research about the impact of organizational culture on the mobility of high-skilled workers. For instance, Peixoto (2001) describes the consequences of the mobility of high-skilled workers and its constraints, stressing that mobility depends on corporate culture. The results of their research indicate that the mobility of high-skilled workers is influenced by the following characteristics of corporate culture: the phase of company development, the investment orientation (export or domestic market), the technology type, the main type of economic activity (manufacturing/services).

Trying to answer the question *"how much does culture shapes people's behavior?"* Polavieja's research (2015) introduces a new quantitative method to estimate cultural effects. This method uses imputed traits (characteristics generated from non-migrating persons from the origin country) as instruments to estimate the causal effect of cultural traditionalism on women's labor force participation. Moreover, Antecol's research (Antecol, 2000) on cross-country differences regarding gender gaps in labor force participation rates across the United States suggests that culture affects economic outcomes, being a permanent portable factor that is not captured by observed human capital measures. Following the same research line, Fernandez and Fogli (2005) have studied the effect of culture on economic outcomes to examine the work capacity and fertility behavior of women in the US, using the 1970 Census. The results showed that cultural proxies (past female labor force participation and total fertility rates from the origin country) have positive and significant exploratory power for individual work and fertility outcomes.

As previously mentioned, there are often more important determinants of migration than traditional economic variables. More specifically, Belot and Ederveen's study (2012) provides sound empirical evidence on the central impact of cultural distance on migration. They investigated the role of cultural barriers in migration for a panel of 22 OECD countries (only developed countries) over the period 1990-2003 by employing several cultural indicators. Some of these indicators were linguistic distance, religious distance, a composite index of cultural distance based on the original four dimensions of Hofstede, and an indicator of cultural distance created by Inglehart and Baker (2000) based on two dimensions, traditional versus secular-rational and survival versus self-expression values. Similar proxies of cultural distance developed by Belot and Hatton (2012) were found as important factors of educational selectivity in immigration.

Concerning the role of family on geographical mobility, Alesina and Giuliano (2010) showed that strong family ties determine increased home production, increased labor force participation of women, and lower geographical mobility. Therefore, the dichotomy between strong family ties (specific to Mediterranean countries) and weak family ties (specific to Scandinavian

European countries) was demonstrated to significantly influence mobility. The same variable was applied by Giuliano (2007) in examining the role of culture in determining living arrangements in Western Europe.

Epstein and Gang (2010) have reviewed the interaction between migration and culture on three main groups: migrants, the families from the origin countries, and the population from the destination country. The review analyzes the assimilation process of the migrants, dividing the study into five parts: enclaves and location choice; production, earnings, and competition; assimilation struggles; family issues; the effects of remittances and selection process, attitudes, and public policy. Although their research is systematic, a limitation of their paper is the lack of a core idea and the lack of the main conclusions regarding their analysis.

Lastly, the relationship between culture and migration may be analyzed from other perspectives, for instance, when considering the cultural consequences of migrants in the destination areas. In this regard, Hugo and Moren-Alegret's research (2008) presents several case studies about the key impact of mobility for the revival of rural areas from Spain, Greece, and Portugal. From the same perspective, the cultural consequences of migration may be found in Meyers's research (2000) on theories of international immigration policy. To define the main approaches in the field of immigration policy, he argues that the theories of domestic policies (compared with the ones of international relations) offer more information in understanding immigration policies by studying their enormous impact on sovereignty, culture, and politics. Even though the paper is from 2000, Meyers makes two important observations: firstly, the difficulty of creating sound immigration policy changes in response to different cultural environments and, secondly, the difficulty of quantifying culture.

1-2 "Culture of migration" and the stability character of culture

Special categories that kept open the debates in this area are studies about the *"culture of migration"* and the ones about the "stability" character of culture. Within the first category, Adrian Favell's study (2008) presents an overview of the importance of East-West migration in Europe associated with the EU enlargement process. Among the characteristics of the migration system in Europe, Favell speaks about a *"culture of migration"* and, to understand the migration decision, he compares the pros and cons of local options and the pros and cons of migrating. Within the concept of *"culture of migration",* a great role is played by the conditions of the local economy, the pressure of family and peers, and the attraction of Western wealth. The same concept can be found in Horváth's research (2008) about the economic and cultural determinants of rural youth Romanian emigrants and Van Mol et al.'s study (2018) about Ukrainian migration in the EU.

Regarding the *"stability"* character of culture, recent macro indexes of cultural distance based on Hofstede's cultural dimensions (Kaasa et al., 2016) face critics regarding the time dimension. For example, Venturini and Lanati (2018) criticized the assumption of stability, stating that is unrealistic in a world of intensified cross-border information flows and globalized mass communication. Their study is the first analysis that explores the relationship between cultural distance and migration, accounting for the time-varying and the asymmetric nature of culture. The model uses bilateral cultural trade as a proxy for cultural distance and the results suggest that positive changes in cultural distance foster migration and, secondly, it is shown that striking changes in the cultural distance have a stronger effect on culturally distant country pairs.

Last but not least, there is also a vast literature about the determinants of migration decision employing linguistic explanations, for instance, Adserà and Pytlikova's study (2012), Atabekova & Shoustikova (2019), Udina & Stepanova (2018). Usually, the role of language on migration is analyzed using the following indicators: linguistic proximity, widely spoken languages, linguistic communities, and language-based policy requirements at the destination country. Collecting data on immigration flows and stocks for 30 OECD destination countries from all countries over the period 1980-2010, Adserà and Pytlikova's (2012) results showed that the effect

of linguistic proximity is larger than the effects of sharing a common border or sharing historical parts. Moreover, Chiswick and Miller (2015) argue that immigrants with a proficiency level of destination language are more successful in adjusting to labor market conditions. Secondly, the authors encourage investments in language training, as the rate of return is higher not only to the individual but also to the entire society.

Networks, cultural similarity, and previous ties between countries play a significant role in migration decisions. In this regard, Pedersen et al. (2008) analyzed the effect of economic and social factors on migration flow from 129 countries to 22 OECD countries for the period 1990-2000. They showed that networks, cultural and linguistic distance are more important for migrants coming from the poorest source countries (Pedersen et al., 2008). The central question of their research was how much the purely economic factors explain migration behavior and how much is explained by other factors. Based on Zavodny's model of migration decision, Pedersen et al. (2008) developed a model composed of the costs of moving to a foreign country and the push and pull factors. Their model included the following cultural variables: cultural similarity (denoted *Neighboring Country*), colony ties (denoted *Colony)*, and a variable indicating if the countries have a common language. Another empirical study applied on a smaller scale is Mayda's paper (Mayda, 2010) on the determinants of bilateral flows into 14 OECD countries between 1980 and 1995. Using a theoretical model based on supply (migrants' decisions to move) and demand (the demand for immigrants in the destination country), she investigates four determinants of migration flows: economic, geographic, cultural, and demographic. The main results indicate that geography and demographics are the most important drivers of migration. Besides, the impact of a common language is not statistically significant, and past colonial relationship does not seem to affect migration rates. Updating Mayda's paper with new data on migration flows for 14 OECD destination countries and 74 sending countries for 1980-2005, Ortega and Peri (2009) show that migration flows increase as the income gap between origin and destination is increasing. Also, it demonstrates that immigration increases employment, with no evidence of negative effects on natives. Regarding colonial relationships and language, similar results are reached.

Previous papers examined the influence of political, economic, and demographic factors on the migration flows to North America between 1976-2000 (Karemera et al., 2000), (Pedersen et al., 2008). In this regard, Karemera et al.'s paper (2000) indicates that improved financial performance and increased flow of foreign credit increases the propensity to migrate. Although no statistical evidence was found in support of the hypothesis that English or French language proficiency or cultural similarity has special effects on migration flows during the mentioned period, it was found that there are three main factors that explain the variations in migrant flows to North America: income, population of the host countries and the locations of source countries.

Regarding the selection of international migrants, studies analyzing the stock of immigrants in high-income countries show that migrants are more educated than non-migrants. The larger the absolute skill-related difference in earnings between origin and destination country. Grogger and Hanson's paper (2011) show that emigration is greater towards destinations that share a common language with the source and that such emigrants are more skilled than non-migrants or emigrants from the same source to other destinations. Studies showed that linguistic proximity favors the selection of high-skilled migrants and that the effects of linguistic proximity are higher for low-skilled than for high-skilled migrants. Examining the determinants of educational selectivity in immigration for 21 OECD destination countries, Belot and Hatton (2012) reached several key findings: firstly, it demonstrated that the greater the return to skills at the destination the greater the positive selection of immigrants by skill level. Secondly, the interaction between poverty and distance increases positive skill selection; thirdly, it was found that the net effect of linguistic proximity is positive, indicating that human capital is more easily transferred between similar language groups. Investigating the role of cultural barriers in migration decisions, Belot and Ederveen (2012) showed that the effect of sharing a common language is comparable in magnitude to the effect of sharing

a border as an increase in linguistic distance with one standard deviation lowers the migration flow with 56%. When applying these indicators to the EU case, the results showed that indicators of common language and religious distance are significant.

In general, the effect of linguistic proximity is smaller than the pull effect of income and the one of ethnic networks in the destination. Furthermore, linguistic proximity matters more for non-English speaking destinations, and stricter linguistic requirements for naturalization deter migration flows. Besides, it was emphasized the fact that immigrants with a proficiency level of destination country's language are more successful in adjusting to labor market conditions. Therefore, investments in language training are of great importance, as the rate of return is higher not only to the individual but also to the entire society.

As explained by Adserà (2015), five key findings may be found in the literature: firstly, the self-selection to more similar cultural destination countries boosts returns to human capital and improves integration. Secondly, large communities with the same language and culture in destination countries encourage mobility and decrease migration costs. Thirdly, acquiring language skills in the destination region is a human capital investment. Fourthly, knowing the most widely spoken languages (in particular, English) provides an additional advantage to migrants and lastly, historical ties decrease migration costs. Also, scholars have emphasized several pitfalls when studying this issue, for example, the return to skills may be reduced by linguistic and cultural enclaves, the difficultly to measure fluency in second languages, and the difficulty to understand their role in migration decisions.

2. Research model and conceptual issues

2-1 Research objectives and proposed model

As stated in the introduction, this chapter aims to explore the influence of cultural distance on migration flows in the EU area to see if there is a model/pattern of general behavior in this regard. To enrich the EU literature on this subject, this research represents an important step in studying migration patterns within the EU starting from a cultural perspective. Although the European region is formed by nations with quite similar cultures, there is no need to minimize the influence of culture on migration flows in this specific area.

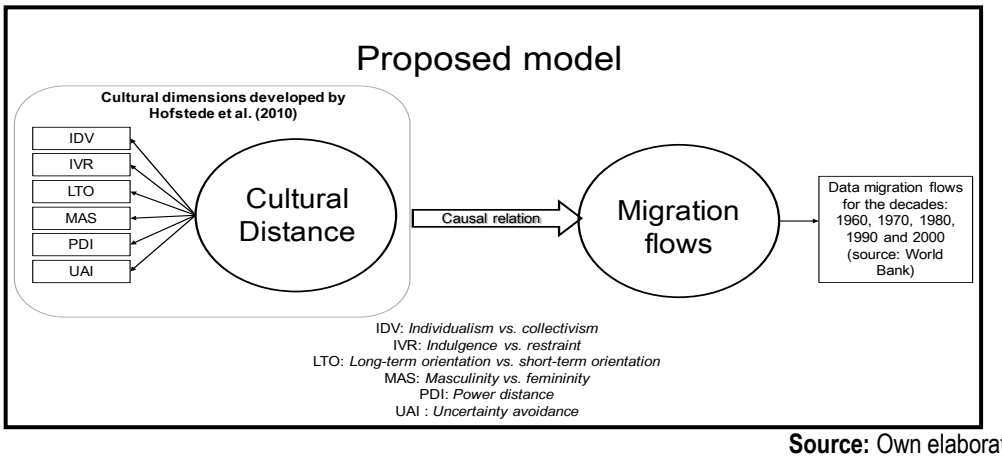
The approaches presented in the above section indicated that different measures of linguistic distance have been considered appropriate in analyzing linguistic proximity between national languages. Therefore, the same approach has been employed in this research for the case of culture, the concept of national cultural distance being used to measure the cultural proximity between nations. The construct of cultural distance is used as the independent variable and, if considering the content-analysis approach developed by Stahl and Tung (2015), it may be included in the category of mixed or positive results. Moreover, the concept of cultural distance used in this study argues that the magnitude of the interaction between different cultures does not lead necessarily to confrontation or conflicts (Luo & Shenkar, 2011), but they can constitute the basis for future agreements.

Although the use of abstract concepts supposes several limitations, such as the incapacity to adopt a multilevel approach, the lack of sufficient attention given to context, or the failure to adopt a dynamic view, this analysis adopts Hofstede's definition, where culture is defined as the collective programming of the mind which distinguishes the members of one group or category of people from another (Hofstede et al., 2010). The cultural dimensions employed in this research are presented below, together with the model proposal.

As mentioned before, the research question is *what the relationship between cultural distance and migration flows is?* (Figure III.1) and, in answering this question, six dimensions of national culture from Hofstede et al.'s model (2010) have been employed. The model proposes a causal relationship between cultural distance and migration flows, and it tests two hypotheses: a null hypothesis indicating no relationship between the cultural distance and migration flows and the

alternative hypothesis stating that the higher the cultural distance, the lower the migration flows. The choice of using Hofstede et al.'s (2010) cultural model is justified by the fact that is the first comprehensive and complete set of cultural measures and the data, although collected more than 40 years ago, has been updated in recent decades and reflects strongly embedded cultural beliefs. The model focuses exclusively on the definition of cultural dimensions developed by Hofstede, and, to maintain it as it is, it does not control for other variables, such as the influence of linguistic similarity or the *"attraction effect"* of previous migration flows. The following paragraphs describe thoroughly each cultural dimension.

Figure III.1 Proposed model



Source: Own elaboration.

2-2 The construct of cultural distance

Cultural distance is defined as the degree to which shared norms and values differ from one country to another (Hofstede, 2001). The model used in this chapter is based on the cultural dimensions theory developed by Hofstede (Hofstede et al., 2010). In 1970, Geert Hofstede, through thousands of interviews which later became known as the cultural dimensions theory, created an internationally recognized model through which 76 countries can be compared and analyzed. Initially, he identified four dimensions that could distinguish one culture from another. Later on, in 1990, after analyzing Asian countries and their strong link with Confucian philosophy, he added the fifth dimension, *long-term orientation*. Besides, in 2010, inspired by Minkov's research (2010), adds the sixth dimension: *indulgence vs. self-restraint*. The last version of Hofstede model (2010) contains six cultural dimensions: *power distance, individualism vs. collectivism; masculinity versus femininity; uncertainty avoidance; long-term orientations versus short-term orientation* and *indulgence versus restraint.*

Table III.1 describes each cultural dimension as indicated in Hofstede et al.'s work (2010). The first dimension is *power distance index* (PDI), and it measures the degree of inequality in a society. The second dimension is called *individualism versus collectivism* (IDV) and is measuring the degree of individualism within a society. The third dimension is *masculinity vs. feminity* (MAS) and is an indicator of how gender roles are perceived in society. The fourth cultural dimension is *uncertainty avoidance* (UAI) and is a measure of in(tolerance) of ambiguity in a society. The fifth dimension is *long-term orientations vs. short-term orientation* (LTO) and is focused on how are virtues orientated toward future rewards (perseverance and thrift) or present and past (for example, respect for tradition). The sixth dimension is *indulgence vs. restraint* (IVR) and is associated with happiness, life control, and the importance of leisure.

Table III.1 Cultural dimensions (Hofstede et al. 2010)

Cultural dimension	*Definition*	*Characteristics*
Power distance index	"The extent to which the less powerful members of institutions	Small power distance countries are characterized by limited

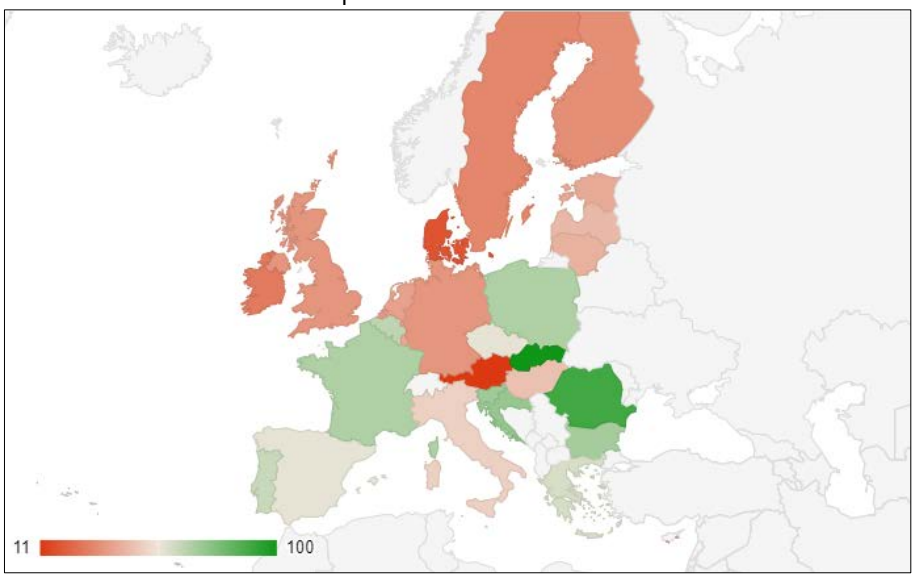
	and organizations within a country expect and accept that power is distributed unequally. Institutions are the basic elements of society, such as the family, the school, and the community; organizations are the places where people work."	dependence of subordinates on bosses, a preference for consultation, and a small emotional distance between subordinates and bosses. Large power distance countries are characterized by higher dependence of subordinates on bosses and a higher emotional distance between subordinates and bosses (employees are less likely to approach and contradict their bosses).
Individualism vs. collectivism	"Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after him- or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty."	For the individualist part, this dimension is more associated with having more personal time, having considerable freedom to adopt own approaches at work, and having challenging work to do. For the collectivist part, the following goal items were more important: having training opportunities, having good physical working conditions.
Masculinity vs. femininity	"A society is called masculine when emotional gender roles are distinct: men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be more modest, tender, and concerned with the quality of life. A society is called feminine when emotional gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life."	Masculinity reflects the preference in society for achievements, heroism, material rewards for success, power, and strength. Femininity stands for cooperation, modesty, tenderness, caring for the weak, and quality of life.
Uncertainty avoidance	"Uncertainty avoidance can therefore be defined as the extent to which the members of a culture feel threatened by ambiguous or unknown situations."	Countries with a high UAI degree establish rigid codes of beliefs and reflects intolerance with unorthodox ideas, while societies with low levels of uncertainty avoidance reflect a relaxed and tolerable attitude among different ideas, behaviors, and actions.
Long-term orientations vs. short-term orientation	"Long-term orientation stands for the fostering of virtues oriented toward future rewards—in particular, perseverance and thrift. Its opposite pole, short-term orientation, stands for the fostering of virtues related to the past and present—in particular, respect for	Societies with a high score on this dimension are prone to preserving traditions and are more reserved against societal change while those with low scores are more pragmatic, being more open to future changes. The latter ones are

	tradition, preservation of "face," and fulfilling social obligations."	advocates of equality, high creativity, individualism. At the same time, the former promotes a strong work ethic, parents and men have more authority than young people, and women and family is considered the basis of society.
Indulgence vs. restraint	"Indulgence stands for a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. Its opposite pole, restraint, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms."	Societies registering a higher score (indulgence side) on this dimension are happier, enjoying life, and having fun. On the other side, a lower score (restraint side) indicates lower percentages of very happy people, orientation toward moral discipline, more pessimism.

Source: own elaboration based on Hofstede et al.'s study (2010).

Each cultural dimension mentioned above has been represented as maps for the case of EU countries. The scale for Hofstede's cultural dimensions runs from 0-100. Figure III.2 graphs PDI dimension. On one pole, we have small power distance countries, such as Austria, Denmark, Germany, Sweden, and, on the other one, there are countries with large power distance, such as Romania and Slovakia.

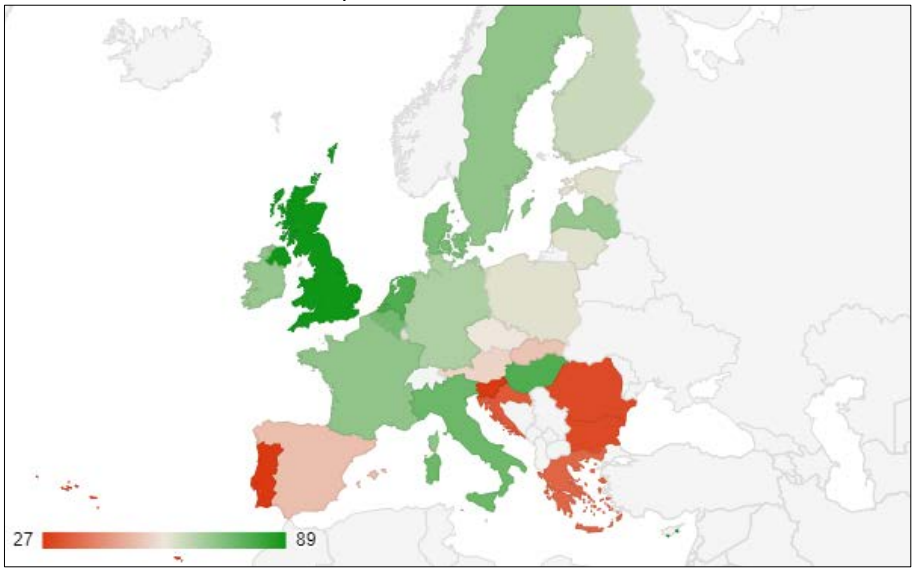
Figure III.2 Cultural dimension PDI in European Union



Source: own elaboration.

Figure III.3 presents the IDV dimension, the high side of this dimension being called individualism and is represented by countries as the United Kingdom, Ireland, and the Netherlands. The low side of this dimension is collectivism and is represented by the following countries: Romania, Bulgaria, Greece, and Portugal.

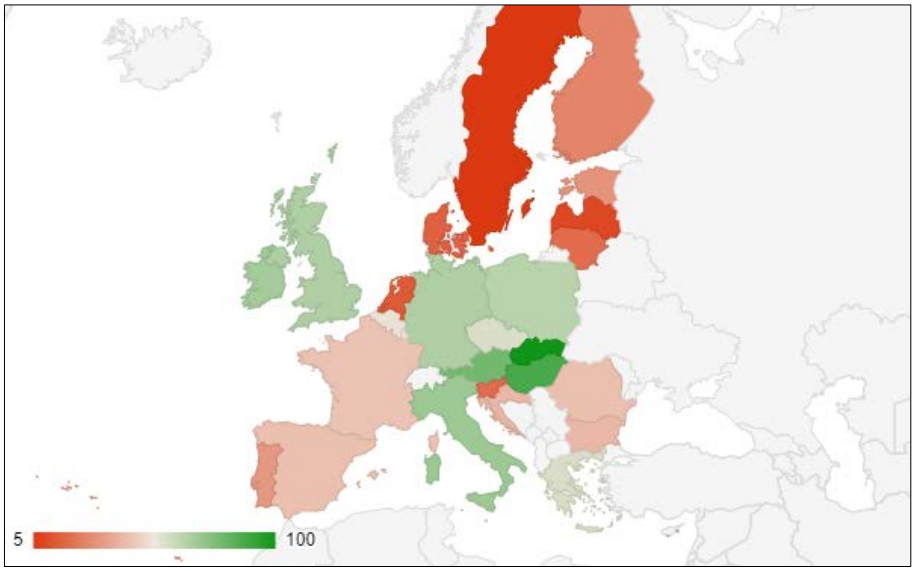
Figure III.3 Cultural dimension IDV in European Union



Source: own elaboration.

MAS cultural dimension is graphed in Figure III.4. The high side of this dimension is associated with masculinity (meaning that people tend to focus on personal achievement, the importance of status, and success) and is representative of the following countries: Slovakia, Hungary, and Austria. The low side of this dimension is associated with feminity (more concern towards the quality of life, taking care of vulnerable ones) and is representative of Sweden, Latvia, and the Netherlands.

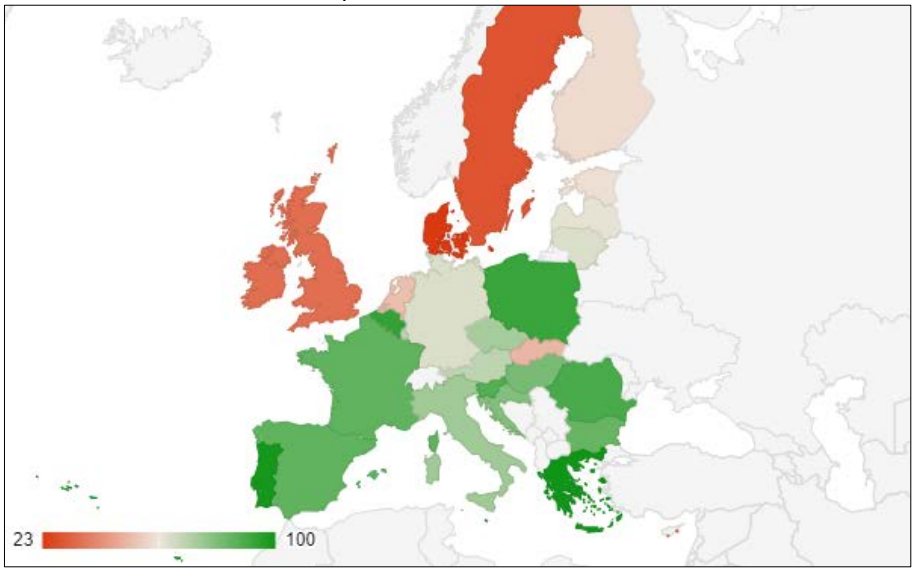
Figure III.4 Cultural dimension MAS in European Union



Source: own elaboration.

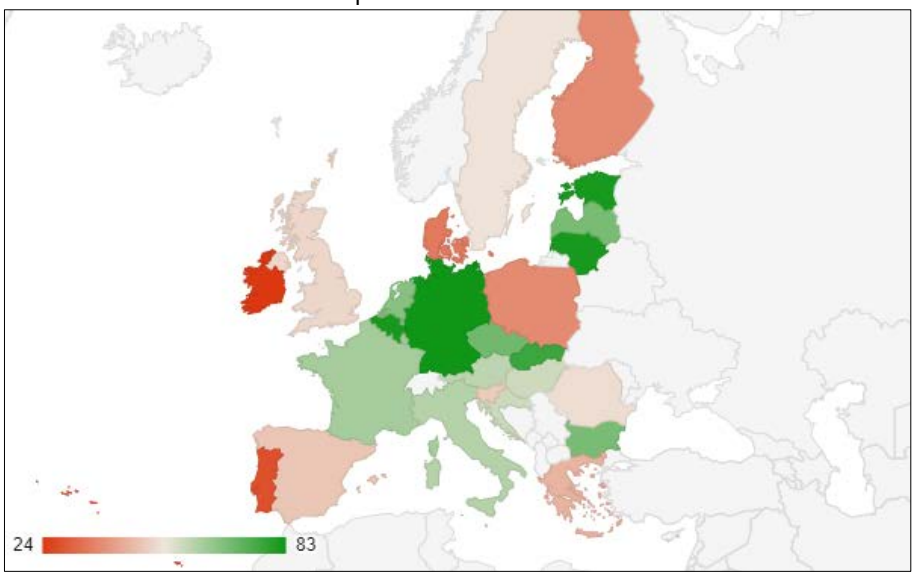
UAI cultural dimension is graphed in Figure III.5. A low score indicates that uncertainty is considered normal and is representative for Denmark, Sweden, UK. On the other hand, a high score indicates a need for predictability and characterizes, among others, the following countries: Greece, Portugal, Poland, and Belgium.

Figure III.5 Cultural dimension UAI in European Union



Source: own elaboration.

Figure III.6 Cultural dimension LTO in European Union

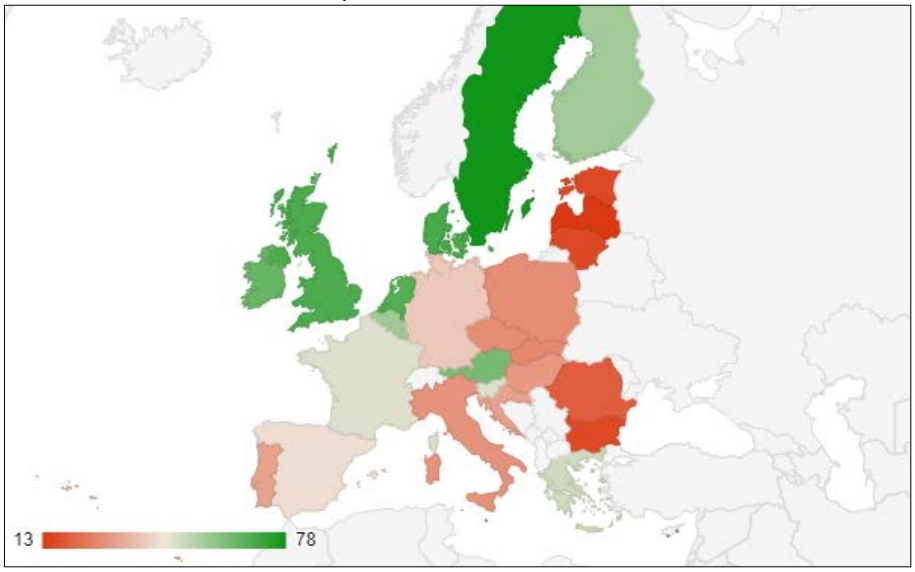


Source: own elaboration.

The cultural dimension LTO is represented in Figure III.6. A low LTO corresponds to short-term orientated societies (meaning that a high value is attributed to respecting tradition and fulfilling social duties) and is representative especially for Ireland and Portugal. On the other hand, there are countries with high LTO scores meaning that they are long-term orientated societies (focused on perseverance and thrift) like Germany, Belgium, Lithuania, and Estonia.

The last dimension, IVR, is graphed in Figure III.7. A low score on IVR is characteristic of restraint societies, that is the ones in which the fulfillment of needs is regulated by strict social norms. For this case, countries with a low IVR score are the Baltic States, Bulgaria, and Romania. At the other extreme, a high IVR score is characteristic of indulgent societies, the ones that promote a more open and positive view on satisfying one's needs. This score is representative of Denmark, Sweden, and the United Kingdom.

Figure III.7 Cultural dimension IVR in European Union



Source: own elaboration.

3. Methodology

To test the hypotheses, two latent variables are created: cultural distance (independent variable) and migration flows (dependent variable). The latter consists of five indicators, each indicator corresponds to each emigration flow from Romania to the following EU countries: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom, for the following decades: 1960, 1970, 1980, 1990 and 2000 (The World Bank, 2020). Although other databases (such as the Romanian National Institute of Statistics, United Nations database, Eurostat) may have had valuable data about Romanian emigration flows, they have been excluded due to limitations regarding the time span or years covered.

The former latent variable, the cultural distance, was considered a static variable for the following reasons: firstly, several studies (Inglehart & Baker, 2000) have demonstrated that cultural differences between nations remain quite stable over time. Secondly, the values remain constant not only for democratic countries, but also for the countries experiencing dramatic economic changes (for the case of Central and Eastern European countries, see Schwartz, Bardi, and Bianchi, 2000). Therefore, this exploratory analysis relies on the standard assumption from the literature (Tabellini, 2010), which states that culture is constant over time.

To measure the cultural distance, a distance matrix was created between the Romanian distances and the corresponding distances for each cultural dimension (PDI, IDV, MAS, UAI, LTO, and IVR) of the EU countries mentioned above. The distances from the matrix were calculated as the difference between the values specific for Romania and the values for the EU countries. The scale for each of Hofstede's cultural dimensions runs from 0-100, with 50 as midlevel. Societies that have score levels under 50 are considered low in that specific rank and the ones that register levels over 50 are considered high. For example, Romania scores 90 on power distance, meaning that people accept easily hierarchical order; it scores 30 on individualism indicating a collectivistic society manifesting in a close long-term responsibility to the member 'group' (usually the group refers to a family). Furthermore, Romania scores 42 on masculinity, being a relatively feminine society, where conflicts are solved through compromise and negotiation; Romania has a high score of 90 on uncertainty avoidance, indicating a strong preference for avoiding uncertainty. On LTO, Romania has an intermediate score of 52 and on indulgence is has a very low score of 20, expressing that Romanian culture is a restraint one, having habits toward cynicism and pessimism (Hofstede Insights, (2020).

The relationship between migration flows and cultural distance has been analyzed through the equation below:

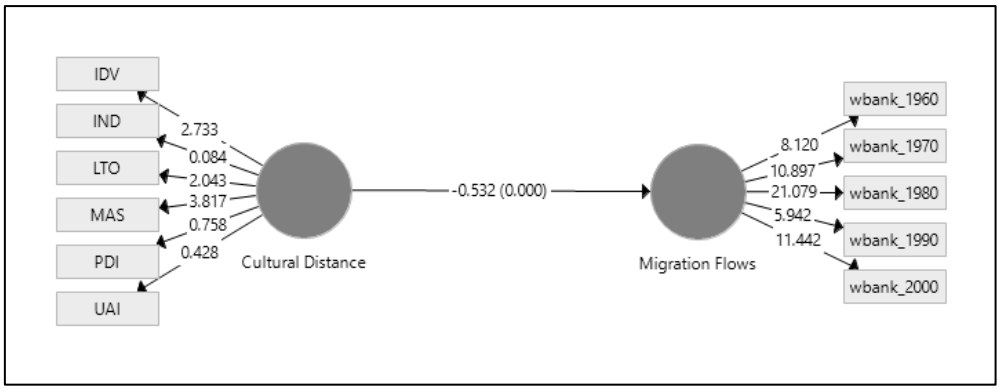
$$Migration_{flows} = \beta * Cultural_{distance}$$

In this regard, structural equation modeling (SEM) was considered the appropriate analysis technique due to several reasons: firstly, because its methodology combines different types of quantitative analyses (factorial analysis and regression analysis) and allows the incorporation of different nuances that enriches this quantitative research taking into account some information resulted from previous qualitative researches (through the construction of the unobservable variables). Secondly, another advantage of using structural equation modeling (Hoyle, 1995) is given by its tidiness in displaying data and by the fact that it produces results easy to interpret, even if the statistics behind the data are quite complex.

4. Results and Interpretation

After applying a reflective measurement model of the constructs in Smart PLS software (Ringle et al., 2015), the results confirm a significant negative correlation between migration flows and cultural distance. In other words, an increase in the cultural distance leads to a decrease in migration flows. The representation of the structural model, including the constructs and its indicators, is presented below.

Figure III.8 Reflective measurements for both latent variables



Source: Own representation applying Smart PLS software.

As expressed in Figure III.8, the relationship between migration flows and cultural distance is statistically highly significant, with a p-value of 0.001, and the resulted equation has the below form:

$$Migration_{flows} = -0.532 * Cultural_{distance}$$

Following this result, the null hypothesis, stating that there is no relationship between cultural distance and migration flows, is rejected. The level of marginal significance suggests stronger evidence to accept the alternative hypothesis, indicating that, as the cultural distance is increasing migration flows decrease. The coefficient of determination, R^2, is 0.338, adjusted at 0.313, meaning that this model explains 31% of the variance in the dependent variable.

These exploratory results are in line with the ones of previous studies, such as Alesina and Giuliano (2010), Peixoto's research (2001), Epstein and Gang (2010), Favell (2008), and Adserà (2015), demonstrating that culture has a significant impact on migration decision. Furthermore, the interpretation of the negative direction of this relationship, the higher the cultural distance between countries, the lower the propensity to migrate, may be debatable. Although common sense may indicate that a person is more likely to migrate to a country similar in values and customs to the origin country, a distinction must be made between temporary and permanent migration. In other

words, the economic determinant may be the most important one in the case of temporary migration, but the cultural determinant may be decisive in choosing between temporary and permanent migration.

5. Conclusions

The results of this research reiterate the idea previously stated in the section with the literature review. More specifically, it demonstrates that cultural variables, in this case, cultural distance, have a significant impact on migration decisions. Although previous studies, such as Belot and Ederveen's research (2012), Antecol's research (2000), Fernandez and Fogli's study (2005), Giuliano's research (2007) have brought significant insights within this area, none of them have focused only to the EU region, nor had the aim of creating migration patterns, starting from the cultural determinant. Therefore, the research from this chapter fills this gap in the literature, the main goal being to explore the influence of cultural distance on migration flows in the EU region to see if there is a model/pattern of general behavior in this regard. The analysis is focusing, for the moment, only on the Romanian case.

To reach this objective, a model representing the causal relationship between culture and migration is created using structural equation modeling in Smart-PLS software. The model uses World Bank migration data for the decades between 1960 and 2000 and a cultural distance based on the six cultural dimensions' model developed by Hofstede et al. (2010). This analysis confirms a significant negative correlation between migration flows and cultural distance in the Romanian case.

The research from this chapter adds valuable input to the existing literature about the interaction between culture and migration, due to several reasons: firstly, it is focusing on an Eastern European country with a communist past and with an interesting democratic evolution. Secondly, the majority of the studies regarding Romanian migration focuses mainly on its flows to specific countries, such as Italy, Spain, and Germany, whereas this research presents a wider perspective because is centered on the emigration flows to all EU countries. Thirdly, this research demonstrates that culture shapes human actions and, it points out that human flows are part of an important cultural assimilation process. Furthermore, this research has several management implications: firstly, the findings demonstrate that cultural aspects are essential in decision-making and, acknowledging this fact, may lead to better solutions to migration problems between various EU countries. Moreover, this research indicates that studying only the economic aspects of migration is not sufficient, there is also a need to grasp the complexity of cultural aspects and their consequences on our lives. Therefore, culture is a powerful resource and can be instrumental in finding proper strategies for migration crises.

Lastly, this research presents some limitations through two possible criticizing paths: one from a conceptual point of view and another from a methodological point of view. Regarding the former, the definitions of culture and migration may face critics. Regarding the second one, the choice to apply this model only to Romania or the use of SEM may be criticized. Given that this study is an exploratory analysis with preliminary results, precisely the research's limitations constitute further lines of research. Firstly, the constructs may be revised; for instance, the construct of cultural distance may include other indicators such as linguistic distance, indexes of religiosity, freedom indices, etc. Secondly, the model may be applied to all EU countries or maybe only to specific countries (Southern countries, Nordic countries, etc.). Afterward, based on the type of correlations between cultural distance and migration flows in those cases, comparative analyses could be created between groups of countries. An extended version of this research may incorporate in more recent periods. Finally, this analysis serves as a base not only for studying the relationship between culture and migration but also for studying relationships between other complex phenomena.

6. Case study

A short history of Romanian emigration to Italy

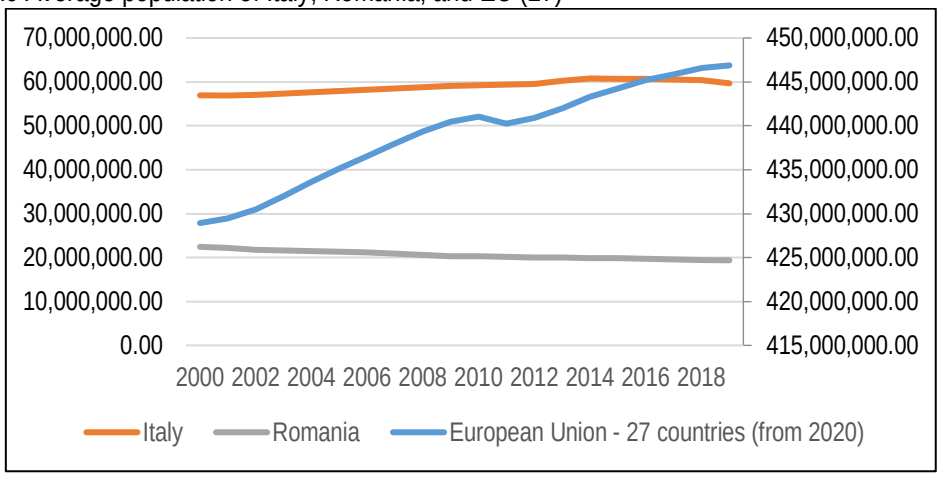
Located at the crossroads of Central, Eastern, and Southeastern Europe, Romania has a population of nearly 20 million and a total area of 238,397 square kilometers, being the 12th largest country and the 7th most populous member state of the European Union. Romania has an impressive emigration history that is usually categorized into three main periods. The first period is the one before communism when the first large-scale outflows (especially from Transylvania) occurred in the context of the wave of Eastern European Migration to North America. The second period is the one during the communist era, when, despite the harsh emigration policy, a relatively high amount of permanent, legal emigration took place under the regime. Lastly, in the period after 1990, the outflows reached historic peaks in the context of travel liberalization and economic transition (more information regarding the Romanian emigration history can be found in (Horváth, 2007) and István, H. (2012).

Within this last period is included the Romanian emigration to Italy, so its history is quite young. Many scholars have studied this topic, especially Romanians and Italians, and notably after the EU enlargement from 2007. Many of these studies focused on the determinants of migration, the consequences of migration for Romania, and the integration process in Italy. The subchapter is structured in four parts: firstly, there are presented several demographic characteristics of Romania in comparison with Italy and the mean for EU27 member states; secondly, there are described previous phases of Romanian emigration to Italy. The third part is dedicated to the special role of informal labor recruiters in accelerating the Romanian emigration to Italy. Lastly, there are presented several characteristics of the recent phase of Romanian migration to Italy.

6-1 Demographic data

Figure III.9 graphs the average total population for Romania, Italy, and the EU from 2000 to 2019. While the EU 27's population follows an ascending trend, the ones for Romania and Italy follow a descending one.

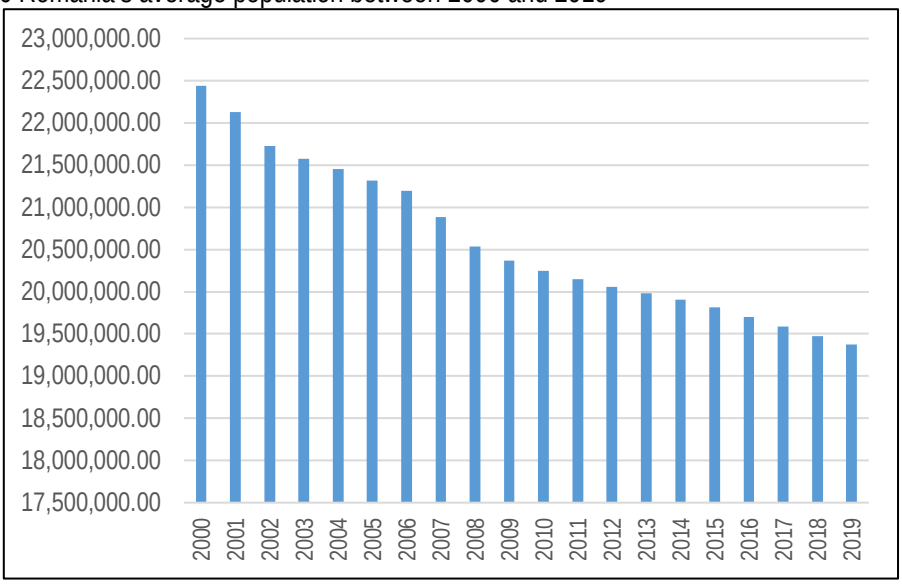
Figure III.9 Average population of Italy, Romania, and EU (27)



Source: own elaboration with Eurostat data [demo_gind].

More specifically, if we look at Figure III.10, the total population of Romania in the same period, it can be observed that the Romanian population decreased from around 22 million inhabitants in 2000-2001 to 19 million in 2019.

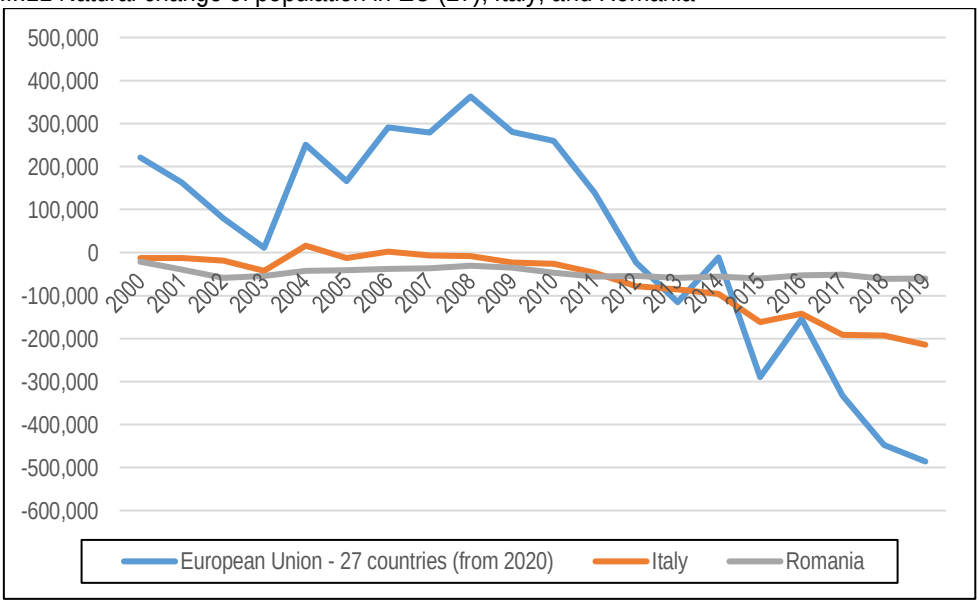
Figure III.10 Romania's average population between 2000 and 2019



Source: own elaboration with Eurostat data [demo_gind].

Another important demographic indicator is the natural change of population that changed dramatically from 2000 to 2019. As we know, the natural population change is the difference between the number of live births and the number of deaths during a specific year. As can be observed from the below figure, all three have negative natural changes, in the EU starting from 2012 and in Italy from 2008.

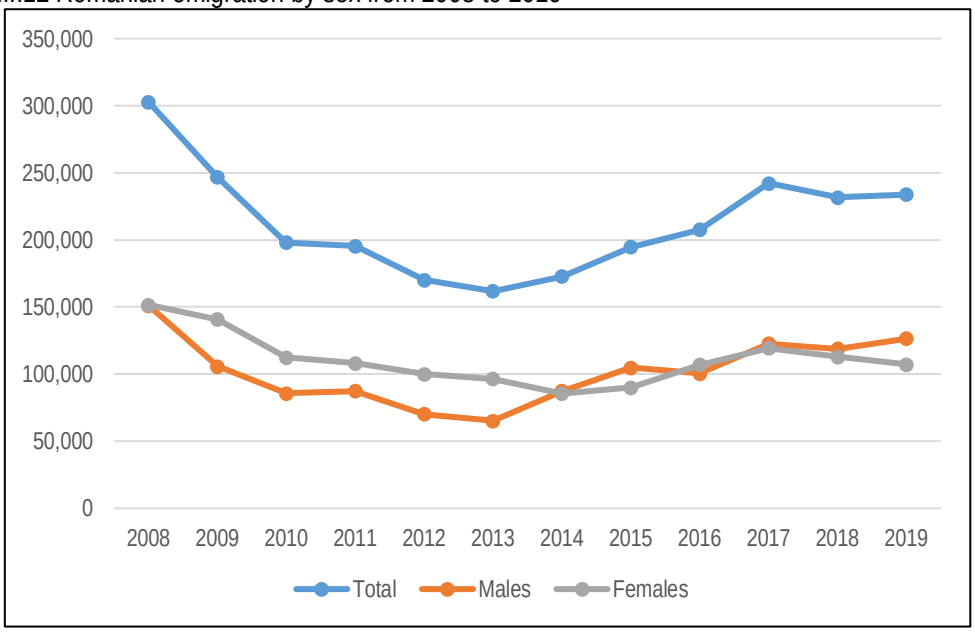
Figure III.11 Natural change of population in EU (27), Italy, and Romania



Source: own elaboration with Eurostat data [demo_gind].

As reported by Romania (European Commission, 2019) the total number of emigrants leaving the country in 2008 was 302.796, decreasing significantly reaching 161.755 in 2013 and afterward increasing again reaching 242.193 in 2017. If, before 2014, more females emigrated, after 2014 the number between the two sexes were similar, and from 2018 more Romanian men started to migrate.

Figure III.12 Romanian emigration by sex from 2008 to 2019



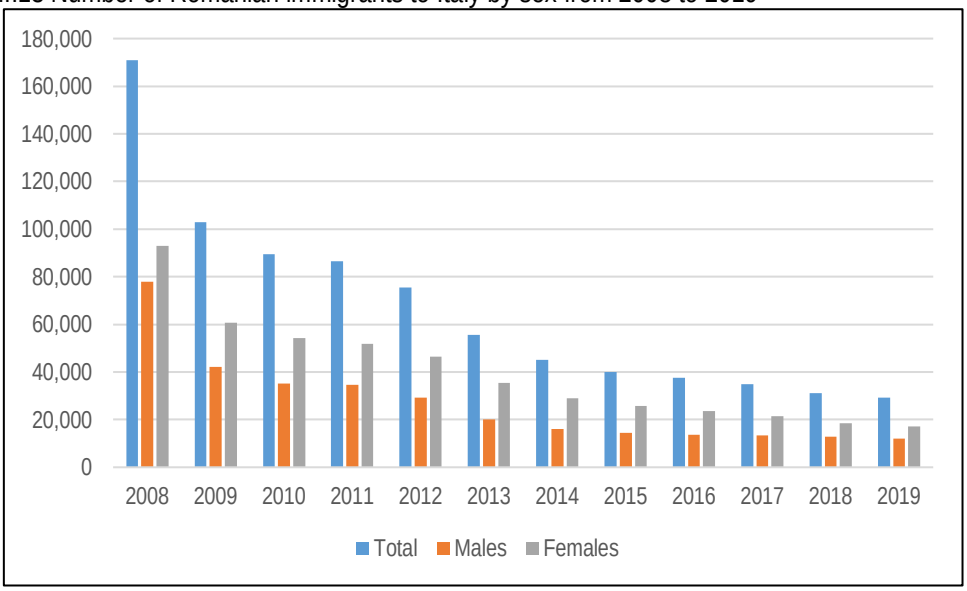
Source: own elaboration Eurostat data [migr_emi2].

Part of these emigrants chose Italy as the destination country. Previous studies indicated that the number of Romanians migrants in Italy, who were only 8,000 in 1990, has been continuously increasing, and became around one million at the beginning of 2008: more than a hundred times more in only 17 years. In a report from 2008, Caritas Italiana (Caritas Italiana, 2008) observed that at the beginning of 2007, out of 3,690,000 regular foreigners, the Romanians were 556,000, 53.4% of them being women. Updated in early 2008, the estimate, based on the cross-use of all available archives, assumes the presence of 1,016,000 Romanians (maximum estimate), unequally divided between the channels of entry: work, family, and other reasons.

It is important to note that numbering migrants from the perspective of the sending or the destination country may be different due to unreported migrations in the origin country. The same applies to the Romanian case. In the below figure, are presented the total numbers of emigrants from Romania to Italy, reported by the Italian state. On Eurostat, there is no information about the number of Romanian emigrants to Italy reported by the Romanian state, but there is information about the number of emigrants in Italy by citizenship, or this information may be found on the website of the National Romanian Institute of Statistics. Also, it is worth mentioning the difficulties regarding the definition of concepts concerning migration, for example, the Romanian National Institute of Statistics categorizes emigrants by the period of stay, classifying between temporary and permanent migrants, the main difference being that the former includes the ones who emigrated for at least 12 months. On the other side, other states may have different definitions of what it means a permanent emigrant.

Therefore, due to unreported migrations in the origin countries, it is more reliable the information provided by the destination country and in the below figure we can see the total flows of Romanian immigrants in Italy, reported by Italian institutions, categorized by sex. It can be observed that the total number of Romanian immigrants to Italy decreased from 170.791 in 2008 to 29.225 in 2019. Also, it can be observed that the number of women immigrants is higher than the ones of man, throughout this period.

Figure III.13 Number of Romanian immigrants to Italy by sex from 2008 to 2019



Source: own elaboration with data from Eurostat [migr_imm3ctb].

6-2 Previous phases of Romanian emigration to Italy

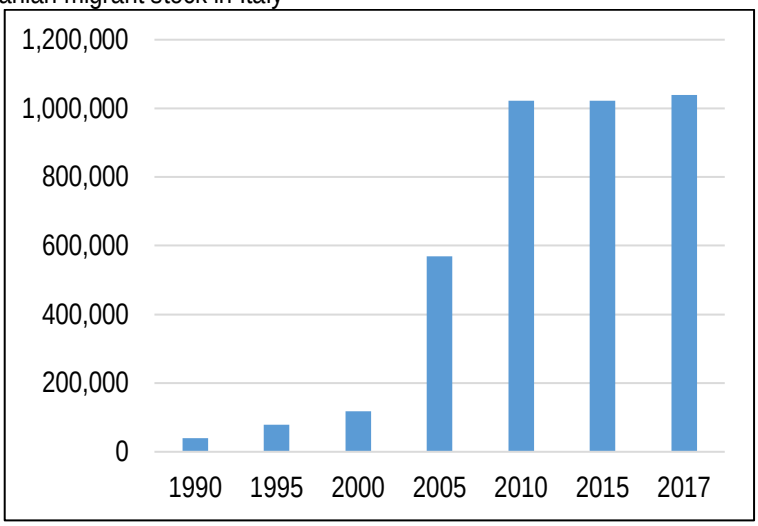
Anghel et al.' paper (R. Anghel et al., 2017) provide a thorough description of the main stages of post-1989 Romanian migration. Italy became a destination country for Romanian migrants beginning with 1997 alongside other countries such as Spain, Ireland, and Hungary. Romanian migration in Italy was preceded by a period of four years of intense ethnic and asylum seekers migration predominantly to Germany, Hungary, France, and Belgium. Migration flows before 1997 were low but diversified, mainly formed by seasonal migrants, circular migrants, migration of highly skilled and ethnic migrants. Many studies as Stan (2005), Cingolani (2008), Roman and Goschin (2011) focused on the special role represented by the Catholic Church (mainly in Italy) and the neo-protestant churches (mainly in Spain and Germany) in initializing and perpetuating the migration flows from Romania to these countries during the '90s.

A decisive factor that changed the type of migration after 1997 was the process of de-industrialization of the former socialist industry, leading to severe impoverishment of the population. Starting from that period, migration came from different regions of Romania: people from the western side of Romania moved to Germany, other people from Transylvania (Cluj and Oas) preferred going to France, from the eastern region of Romania, many migrated to Turkey, Israel, and Italy and many Romanians from south and southwest migrated to Spain and countries of former Yugoslavia.

From 2002, the aim of the Romanian emigrants shifted from labor to long-term residence due to migration networks created and consolidated previously by small ethnic communities, student and professional' migration, religious networks, recruitment agencies, and tourism. Therefore, the pull factor of Romanian migration in that period was formerly migration networks, especially in Italy's case, as argued by Sandu (2006), networks based on kinship and friendship. As Romanians gained more rights and increased their social ties, the number of legal Romanians residing in Italy increased. Therefore, their migration plans were not anymore oriented only to long-term settlement, but a great part of them wanted also to settle permanently. The number of mixed marriages between Italians and Romanians and the school attendance of Romanian migrants after 2000 confirms this shift. Besides, migration networks and the high demand in the care sector lead to an increased number of Romanian females migrating to Italy (Prelipceanu, 2011). Also, the institutional and legal framework from 2000-2007 played a significant role in opening the migration perspectives of Romanians. More specifically, the normalization of visa requirements for Romanian

migrants in the EU has granted them freedom of movement and, therefore, has decreased the migration costs for Romanian migrants.

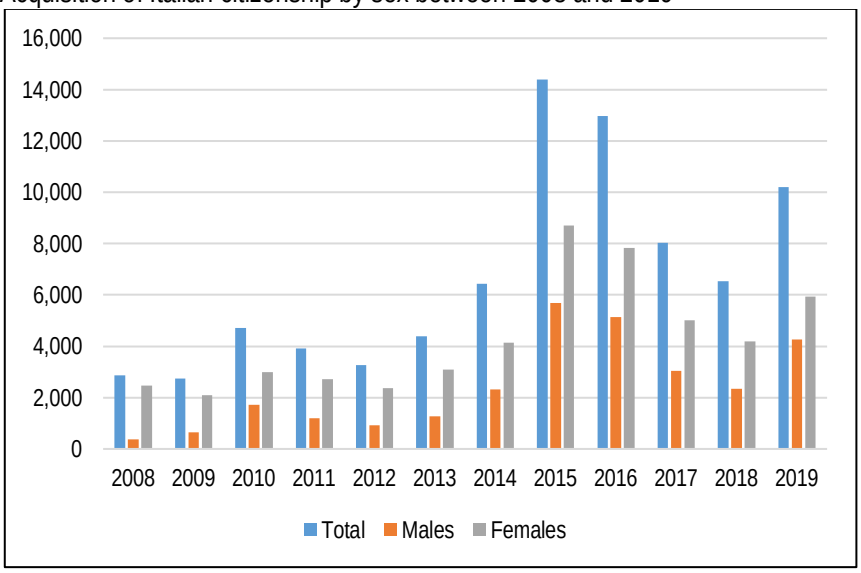
Figure III.14 Romanian migrant stock in Italy



Source: own elaboration with data from UNDP (UNPD, 2019)

These changes are reflected in the numbers of Romanian stocks in Italy and the number of those who acquired Italian citizenship. As shown in the above figure, the number of the total migrant stock estimated by UNPD increased sharply between 1990 and 2010, from 40.066 to 1.021.438, reaching 1.039.584 in 2017. Besides, as graphed in Figure III.15, the total number of Romanian immigrants who acquired Italian citizenship increased between 2008 and 2015, having its peak in 2015 with 14.403, followed by a descending trend. Also, when we look at the citizenship acquisition by gender, it can be observed that the number of female immigrants who gained Italian citizenship is greater than the one of men.

Figure III.15 Acquisition of Italian citizenship by sex between 2008 and 2019

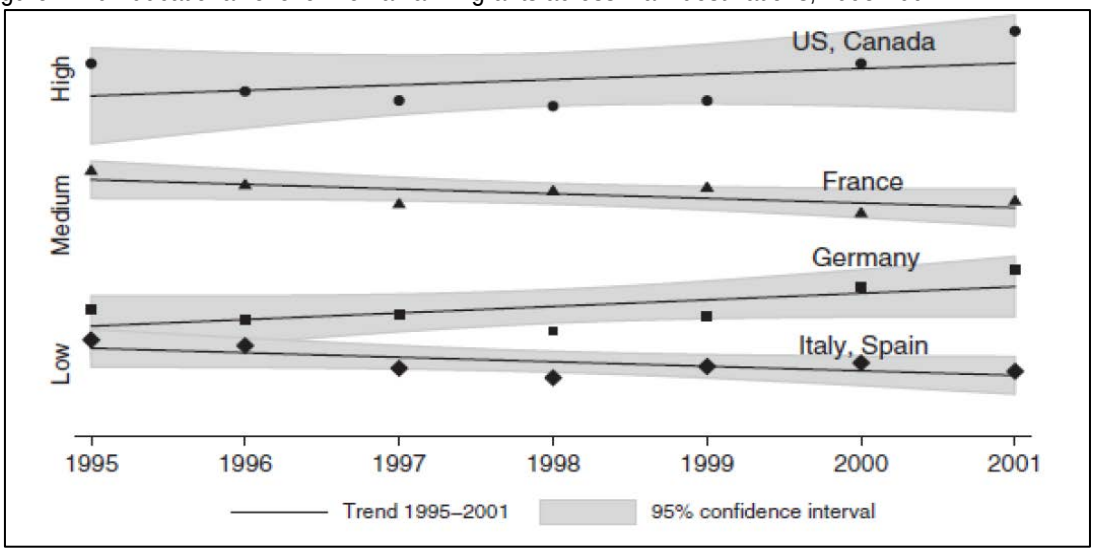


Source: own elaboration with data from Eurostat [migr_acq].

Ambrosini et al. (2005) studied the selection of Romanian migrants in Italy. Using the model of schooling, migration, and return developed previously by Peri and Mayr, they evaluated the aggregate effects of migration for Romania. Their results suggest that at the end of the migration cycle, the large outflow of migrants will be followed by large inflows of return migrants. In addition, they emphasize a possible increase in average wages and levels of schooling in the Romanian population due to investments in education and productivity improvements of the returnees. It is

noteworthy the classification they made according to the type of selection of Romanian migrants (Figure III.16): positive selection characterizes the migration flows to traditional immigration countries (US, Canada, and Australia); neutral average selection of migration from Romania toward Germany, Austria and France and negative selection of Romanian migrants towards Spain, Italy, Portugal, and Greece.

Figure III.16 Educational level of Romanian migrants across main destinations, 1995-2001



Source: (Ambrosini et al., 2015)

Analyzing the return migration of the Romanian case, Lianos' survey (Lianos, 2009) indicates that the main pull factors of migration were better job opportunities and that the decision to migrate was usually a family decision. Regarding the job type, migrants worked in agriculture and construction; most of them working without a contract. An interesting result of the survey was that the majority of migrants have obtained additional qualifications, more specifically learning a new language and learning new skills on the job. When referring to the return migration, half of the returnees intend to stay permanently in Romania and the other half to migrate again, most of them returning due to family reasons or dissatisfactions regarding their job. Based on a study developed by Caritas Romania in collaboration with Caritas Italy (Caritas Italiana - Caritas Romania, 2010), Vittorio Nozza (2010) describes how Romanians are viewed in the Italian community. He argues that Romanians are viewed with hostility and with disgust due to an extrapolation of the delinquent activities made by a specific segment of Romanian immigrants. A more detailed description of Romanian immigrants regarding the type of employment, education, marital status, and the evolution of Romanians in Italy from 1991 to 2009 can be found in Antonio Ricci's paper (Ricci, 2010). His study describes the labor status of Romanians in Italy in 2008 (the majority of them were working in the construction sector), describes also the entrepreneur spirit of Romanians in comparison with Moroccans and Albanians, and the return perspectives of Romanian immigrants.

Andrea Raluca Torre's paper (Torre, 2010) on Romanians' integration into Italian society was based on a survey applied between June and November 2007 on a significant sample from the Romanian community in Italy. Besides the demographical characteristics of the migrants, the survey captured the perceptions on specific integration categories, including the conditions on the labor market, the role of the institutions, and other aspects of socio-cultural life. The results of the survey reveal that Romanian's perceptions of Italians and vice versa were based on stereotypes.

6-3 The special role of informal labor recruiters

Many authors as Ban (2012), Anghel (2011), Cingolani and Piperno (2005), etc. have studied Romanian emigration to Italy from the perspective of transnationalism. For example, Ban's paper (Ban, 2012) analyzed how economic transnationalism emerged and reproduced over time in

the case of Romanian migration to Italy from the 1990s to the early 2000s. Their paper was focusing on headhunters or labor brokers specialized in recruiting skilled and semi-skilled workers to do specific works in the Italian labor market. The results indicate that the headhunter's activity is an overlooked category of agents of economic transnationalism.

It is worth mentioning two practices that had a significant impact in reducing the costs of labor migration, particularly in the aftermath of January of 2002. Firstly, there was informal border clearance brokered by private actors (coach carriers and traders) and strategies of financing prospective migrants who experienced cash flow problems. The former refers to the private actors that used bribery to institutionalize patronage networks around customs and border police officers to avoid taxes and restrictive regulations on the mobility of people and goods. For example, supplying border officials with informal payments and supplying bus drivers with informally paid fees to make sure that coach passengers, who overstayed their visas, were able to cross the border.

The second border clearance strategy was meant to deceive the Romanian government's measures that had the aim to alleviate EU fear of massive Romanian migration after 2002. For instance, many coach companies "borrowed" each traveler the money required by law to be allowed free passing by the border police. After crossing the border, the borrowed money (which, in some cases, were charged with an informal interest rate) had to be returned to the coach company.

When examining the Romanian emigration to Italy another important factor was labor reallocations through informal labor recruiters. Sandu et al.'s (2006) study indicated that only 11% of the respondents who migrated at least once after 2001 said that they had been recruited by state agencies. Therefore, a much larger amount of labor mobility from Romania to Italy was created due to informal labor recruiters. Operating through the gaps within the national Italian and Romanian regulations, these informal actors build networks of labor supply that filled labor niches in the Italian labor market. There were at least three categories of this kind of actors: individuals hired or self-employed as labor recruiters for various quasi-formal Italian economic sectors, Romanian immigrant businesses in Italy, and Italian businesses in Romania. This informal labor recruitment experienced a boom during Silvio Berlusconi's second term in office when illegal constructions were tolerated (Golden & Picci, 2006). Based on interviews with Romanian headhunters from Verona, a Romanian style of transnational headhunting was portrayed. This style usually involved two people: an agent of the headhunter and a skilled Romanian or an Italian worker with experience in Italy. While the majority of respondents, who were recruited in this way, said that they were content with their jobs, some respondents reported highly exploitative labor practices (i.e. they were forced to work for several months with no wages, other were victims of violent behavior).

The Italian end of the headhunting network was an Italian company or Italian individual with Romanian residence, who, through their inclusiveness in the local Romanian society, obtained information about eligible workers. As observed by Stocchiero (Stocchiero, 2002), in the 1990s, approximately 13.000 Italian small and medium businesses were created or relocated in Romania. Later, in the 2000s, in small cities as Timisoara and Arad, their settlement was known as the common phenomenon, *Little Italy* (Tropea, 2001). This was not only the case for the south-western Romanian cities but also for the northeast region of Moldavia. For example, in a 2003 report of Turin municipality, it was observed that a quarter of Romanian workers in Turin were from Bacau county, a region with a high density of Italian small and medium enterprises. The report stressed out that Italian companies in this region represented a pull factor for the Romanian labor force (2002).

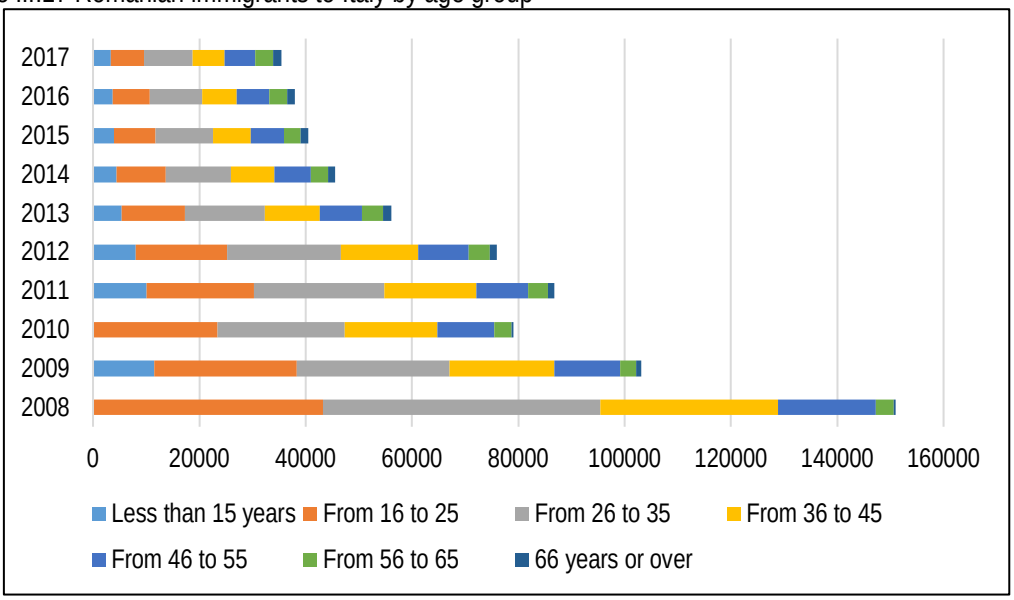
A softer view on Italo-Romanian transnationalism can be found in Cingolani's works (Pietro Cingolani & Piperno, 2005), in which the case of Romanian emigration to Italy is divided into four phases: the discovery (1990-1995), consolidation (1996-2001), circulation (2002-2007) and the border opening (from 2007). In the Romanian case, the family remains the core around which the process of migration is carried out, and within which further cross-border connections are created.

6-4 The recent phase of Romanian migration to Italy

As I mentioned in the beginning, authors differentiate between three main phases: the early stage of migration (pioneers), characterized by unsettling migration strategies; the second phase is represented by the development of networks and the period after 2002 when migration was no longer subject to visa requirements. When referring to the channels of migration, for example, Anghel (R. G. Anghel, 2011) identified at least five strategies: invitations received from relatives and friends from Germany, temporary labor contracts mainly in the agricultural sector followed by irregular stays, organized tour visits, purchasing visa from informal "visa entrepreneurs", organized irregular border crossing. It is worth mentioning that among the irregular migrants, who were migration pioneers, many of them ended up in Italy after failed migration attempts in former Yugoslavia and France.

At the beginning of 2011, as part of the TEMPO project (Mara, 2012), a study addressed the issues of push and pull factors of Romanian migration in Italy based on a sample of 1000 individuals from Turin, Milan, and Rome. The survey's results indicated that the majority of migrants arriving in Italy between 2004 and 2011 were women within the age group 25-34. Besides, comparing migrants from that period with the previous ones, it was shown that the majority of previous migrants had an undergraduate level of education while the majority of the ones who come between 2004 and 2011 had higher education. The main pull factor was job opportunities, and the decision of choosing a particular location was relying mainly upon networks already established in different regions. The survey showed that, between Milan, Turin, and Rome, Milan was attracting the youngest Romanian migrants. In addition, the most highly educated are present in Rome and Turin. A difference between immigrants who came between 2004 and 2011 and those who came earlier is that the latter ones plan to settle permanently in Italy, while the others plan to return to Romania or to migrate to another country. Eurostat data shows that, for the period 2008-2017, the majority of Romanian immigrants in Italy are from the age group 25-35. Also, Figure III.17 shows a descending trend over the years for all age categories.

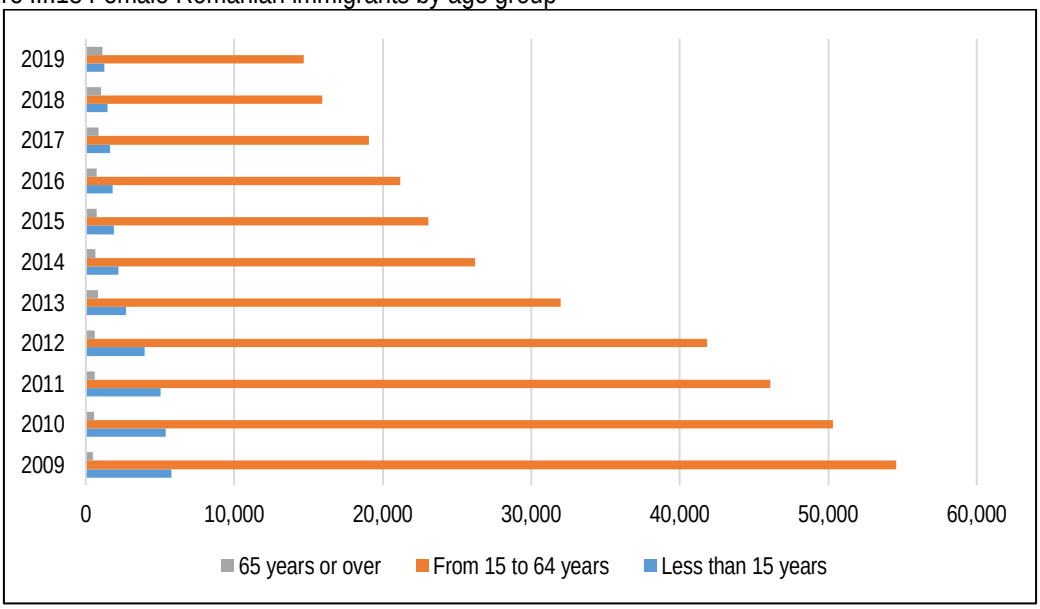
Figure III.17 Romanian immigrants to Italy by age group



Source: own elaboration with data from Eurostat [migr_imm3ctb].

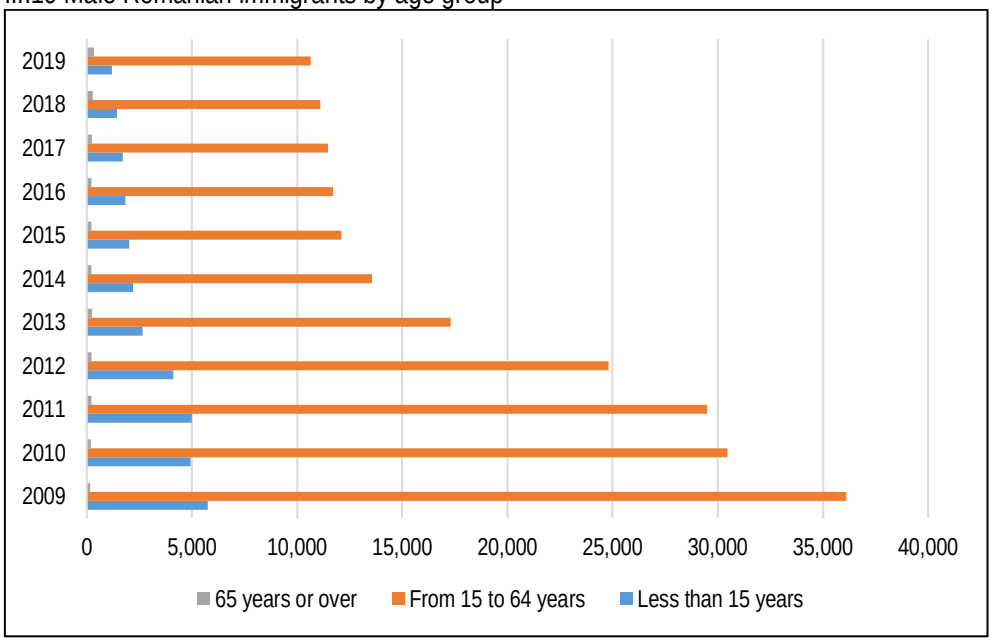
The decomposition by sex and age groups reveals that the number of females over 65 is higher compared with the corresponding number of males from the same age category between 2009 and 2019. Besides, it can be observed that the other age groups (15-64 and less than 15 years) registered a notable decrease in this period.

Figure III.18 Female Romanian immigrants by age group



Source: own elaboration with data from Eurostat [migr_imm3ctb].

Figure III.19 Male Romanian immigrants by age group



Source: own elaboration with data from Eurostat [migr_imm3ctb].

Recent studies analyzed the relationship between the perpetuation of relative poverty and deprivation in Romania and continuous migration flows to Italy. For example, Precupetu et al. (2015) argued that there are special categories at the poverty threshold which, although does not fall into the typical poor category, share similar socio-demographic characteristics with the later ones, as the number of unemployed within a household, the proportion of household production, household type, etc (Precupetu et al., 2015). Therefore, it may be argued that, after 2010, migration flows remained at relatively high levels due to the perpetuation of relative poverty in Romania.

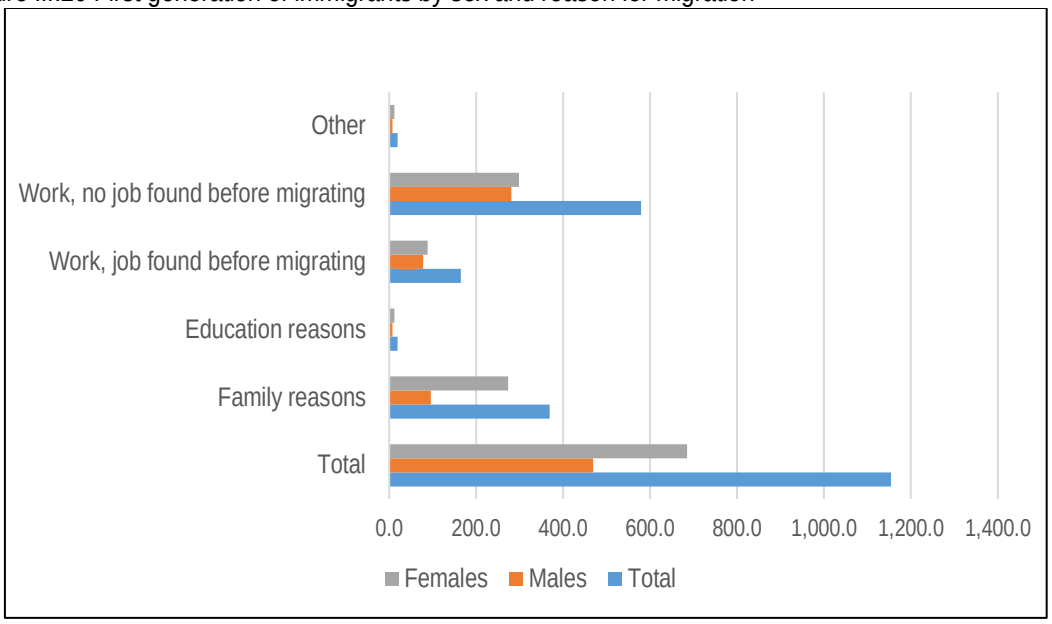
More recently, there are many studies on the Romanian migration case focusing on the relationship between gender and migration and the impact of migration in the origin country. Using multi-sited research in a rural area from eastern Romania and Rome, Vlase and Voicu's (2014) paper focuses on the gender differences in the migration process and their effect on the socio-cultural development in the origin area(Voicu & Vlase, 2014). Given the long-term participant observation carried out in 2000, 2003, 2006, and 2010, the interviews' results enabled us to

understand better the changes in gender relations. The results showed that women's contributions are not acknowledged in the origin areas, women's perceptions of development are linked usually with a higher level of aspirations, broadening cultural relations, and a higher degree of independence. An interesting result, specific for rural areas in eastern Romania and also documented by Chytkova (2011), is that self-sacrifice for the interest of family was found to be one of the main characteristics of women's identity in Romania(Chytkova, 2011).

Furthermore, there are also other studies, as Vlase and Voicu's paper, which are focusing on the social integration of highly skilled migrants in destination countries (Voicu & Vlase, 2014). The paper was not centered only on highly skilled Romanian emigrants in the EU, but also on other migrants from the EU, using data from European Social Survey between 2006 and 2011. Although the paper faces multiple limitations in conceptualizing the specific terminology (i.e. the vague definitions of troubled and functional economies) or regarding the methodology (i.e. lack of significant control variables: working sector, age, marital status, etc.), their paper brings insights regarding life satisfaction, job opportunities and civic participation of highly skilled migrants in EU.

Davidescu et al.´s paper (2017) aimed at identifying the main pull factors which determine the migration decision of Romanians toward other EU countries. In doing so, they used static and dynamic gravity models, for the period 2007-2014 toward 10 EU countries: Czech Republic, Denmark, Finland, Germany, Italy, Netherlands, Norway, Poland, Spain, and Sweden. The results showed that the economic conditions in the destination country (specifically the GDP/cap and the level of employment) are the main determinants in the migration process of Romanian migrants.

Figure III.20 First generation of immigrants by sex and reason for migration



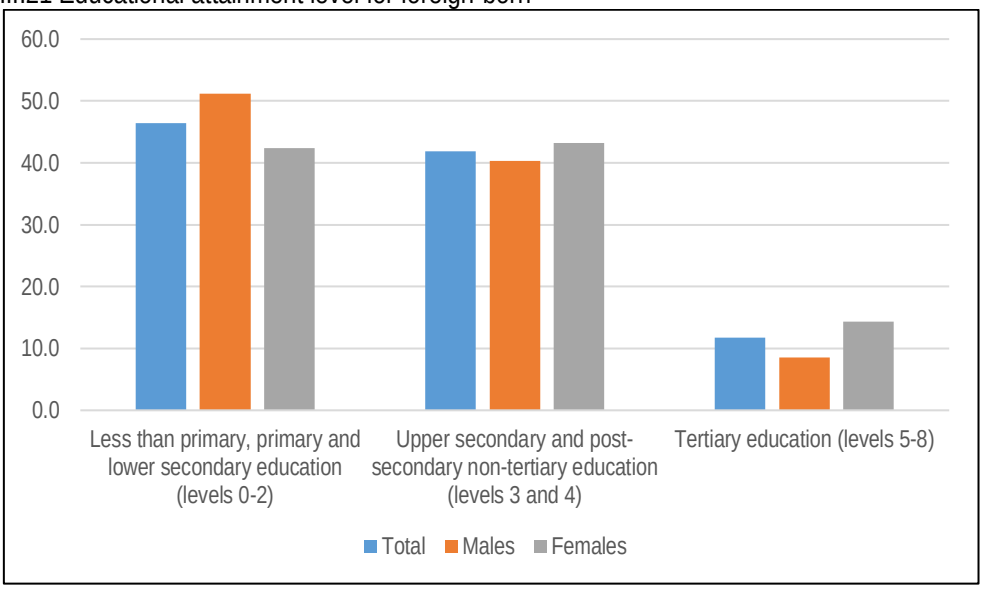
Source: own elaboration with data from Eurostat [lfso_14b1dr].

Figure III.20 graphs the first generation of migrants by citizenship and the reasons for migration in 2014 (the only year available) as reported by Italian institutions. It can be observed that the main reasons for migrating are work and family reasons. Also, the distribution by sex indicates that the number of first-generation male immigrants that came for work reasons is slightly higher than the one for women. Regarding family reasons, the number of females is higher compared with the one for men. Regarding the educational reasons, the number of females choosing this category as the main reason for migration is double compared to the ones for the males.

Returning to the educational background of recent immigrants, Figure III.21 presents the percentages of foreign-born in Italy with the age from 15 to 64 years classified by educational level and sex. It indicates that, in 2014, the majority of foreign-born immigrants in Italy have less than

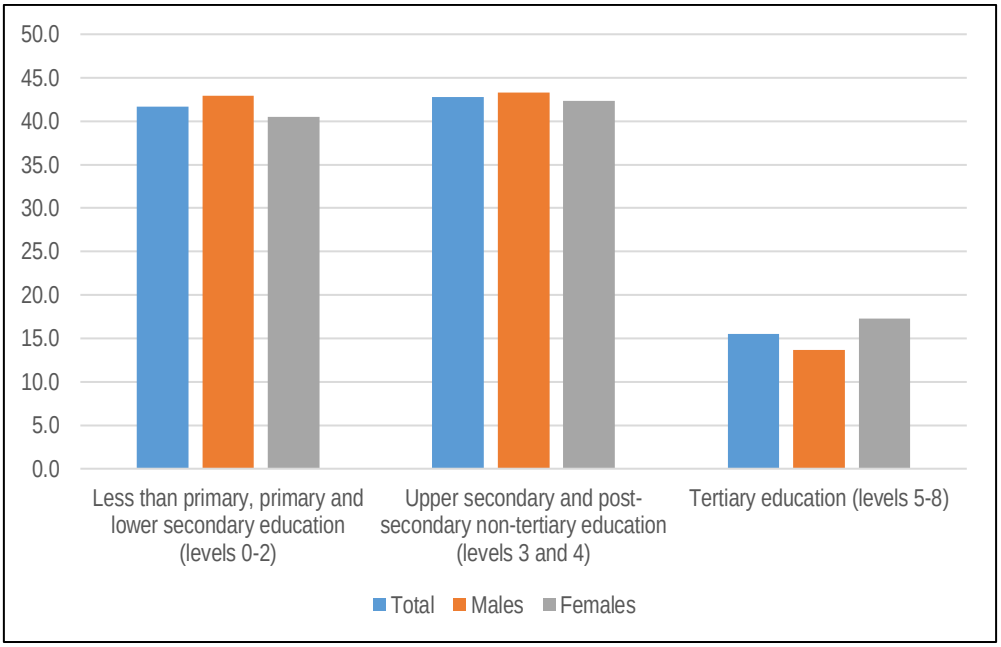
primary and lower secondary education and that the percentage of females with upper secondary and tertiary education is higher than the one for males.

Figure III.21 Educational attainment level for foreign-born



Source: own elaboration with data from Eurostat [lfso_14beduc].

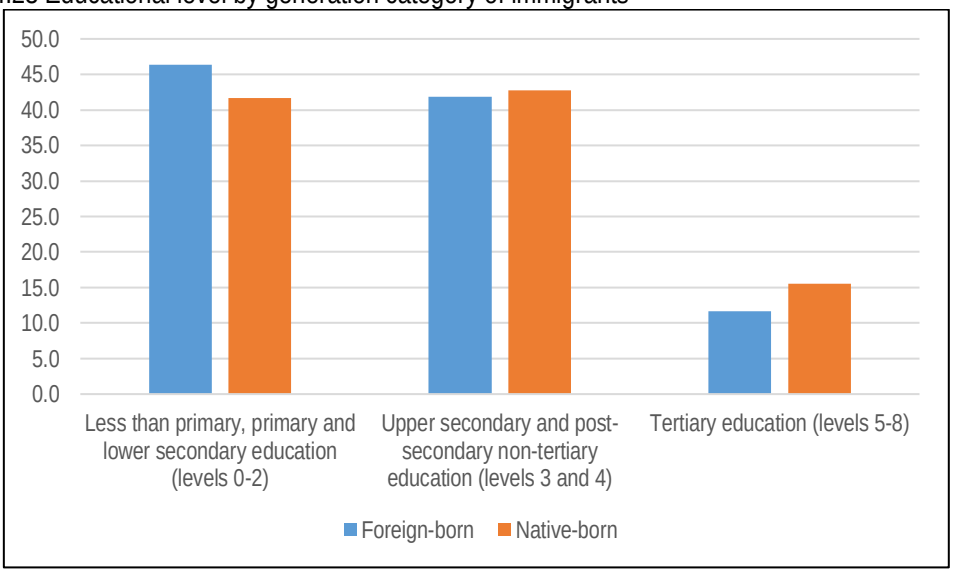
Figure III.22 Educational attainment level for native-born



Source: own elaboration with data from Eurostat [lfso_14beduc].

Furthermore, Figure III.22 graphs the percentages of native-born with the age between 15 and 64 years classified by educational level and sex. It can be observed that the second generation of immigrants is more educated. Also, the percentage of males is higher compared to the ones for women for primary and secondary education, while regarding tertiary education, the percentage of females is higher compared with the one for males. Furthermore, as Figure III.23 shows, when comparing the first with the second-generation immigrants in Italy by educational level, the latter has higher percentages for secondary and tertiary education, indicating that second-generation immigrants are more educated than the former ones.

Figure III.23 Educational level by generation category of immigrants



Source: own elaboration with data from Eurostat [lfso_14beduc].

The present report emphasized the evolution of the flows and stocks from Romania to Italy in the last years, with special attention on reasons for migration, the education level, and the sex distribution of Romanian migrants to Italy. Romanian emigration to Italy begun in 1997 followed by a boom between 2002 and 2008, in the context of visa liberalizations, and continues until today in a descending trend. During this time, the main migration reasons remained work and family reunion. The majority of Romanian immigrants have secondary education, but the number of those with secondary and tertiary education saw an increase. Besides, the distribution by sex indicates that in the last period, Romanian female immigrants outnumbered men, and the age distribution indicates that the majority of Romanian immigrants in Italy are of working age.

Chapter IV Other determinants of migration flows

The research on the relationship between immigration and development has gained much attention in development research due to significant policy implications. One specific aspect, which explains the elements and aspects that determine people to migrate, has gained even more attention. Indeed, the decision to migrate is complex, involving cost-benefit analyses between origin and destination regions. Depending on migration type, internal or external migration, these analyses are influenced differently by economic, social, cultural, and political factors. More than often, studies on this matter are centered usually on the explanatory power of socio-economic pull factors from the destination countries, minimizing other elements' explanatory power. In this context, this research aims to create a comprehensive model of migration determinants taking into account the following dimensions: economic, social, cultural, and digital. This research has two objectives: firstly, to analyze the direct effects of these four dimensions on migration flows and, secondly, to analyze the mediating role of the following constructs: economic, social, and digital distances on migration flows.

Based on previous research, five constructs were created, four of them encompassing a specific set of determining factors and one encompassing several migration flows. The first construct is economic distance or dimension, which reflects the distance between countries in economic terms; in other words, it looks at the classical economic determinants of migration decisions. The second construct is social distance or dimension, and it defines the differences in the level of societal development between countries. It is reflected in the elements developed within the social progress index and it includes the satisfaction of basic human needs, foundations of well-being, and opportunity.

The third construct is cultural distance or dimension, and it defines the differences in the national culture. In this regard, this construct consists of two of the cultural dimensions developed by Hofstede (Hofstede Insights, 2020), power distance index and uncertainty avoidance index. The fourth construct refers to technological/digital advancement and expresses the differences in digital performance between countries. In this regard, the construct reflects the discrepancies between states in five areas: connectivity, digital skills, internet services used by citizens, integration of digital technology by businesses, and digitization of public services. Finally, the fifth construct consists of Romanian outflows to 21 EU member states for each year between 2007 and 2017.

A path-model was created and estimated through partial least squares structural equation modeling (PLS-SEM) based on these five constructs. The PLS-path model was applied to Romanian migration flows to 21 EU member states during 2007-2017. This research's originality stands in its conceptual framework and its methodology, being the first study examining the effect of digital advancement on migration decisions and the first study that integrates four dimensions, considered critical drivers of migration, into a path model estimated through PLS-SEM.

This chapter is structured in six parts. The first sections are the literature review and the description of the conceptual framework. The third section presents the method, the description of the variables, and the study area. The fourth section is dedicated to evaluating the PLS-SEM results, including the assessment of the reflective measurement model and the evaluation of the structural model. The fifth section presents the results of the mediation analysis and in the end, the chapter presents some concluding remarks and the limitations of this research.

1. Literature review

The literature about the determinants of migration is considerable, and, given the objective of this chapter, it will be grouped into two sections; more specifically, the first part of the literature review will be focused on the socio-economic determinants of migration, and the second one on the cultural and digital impacts on migration. Part of the literature from this chapter briefly reiterates the literature review from chapter III since it spoke about the impact of culture on migration. Before

starting, it is important to mention that researchers analyzed mainly the socio-economic drivers of migration, undermining the impact of other factors. Having this in mind, we will proceed by describing the theoretical and the practical developments made until now in the literature.

1-1 Socio-economic drivers of migration

The classical determinants of migration are intensively studied within the economic approach of migration decisions. The economic approach uses the theory of human capital, and its rationale is that individuals consider migration as an investment if it implies a better return on their human capital. Within this approach, the most encountered economic models are the human capital model (Sjaastad, 1962), expected income model (Todaro, 1969), risk propensity and risk aversion model (Stark & Bloom, 1985), utility of consumption model (Christian Dustmann, 1995), etc. These studies focus on comparisons between origin and destination regions about GDP, expected income, job-finding probability, regions' wealth, employment rate, income distribution, etc. The results of these studies demonstrate a positive relationship between migration and economic drivers; in other words, the higher the wealth differentials between origin and destination regions, the higher the propensity to migrate.

Other determinants of migration go "beyond GDP", in other words, migration also rises from social factors by comparing the differences in income distribution, types of inequality, general well-being, etc. Studies that explain migration taking into account social factors are Collier (2015), Park (2015), Brunetta et al. (2004), Smith & Floro (2020), etc. These studies suggest that the propensity to migrate is higher when the dissatisfaction with the social conditions (including the provision of basic human needs: nutrition, water, shelter, and sanitation, etc.) from the origin areas is increasing. Besides, the institutional framework from the origin/destination countries may create push/pull factors of migration. In this regard, Arif's research (2019) is the first study that analyzed the influence of economic, political, and social institutions on international migration for 103 countries over 1990-2000. Their results indicate that economic freedom has the most substantial pull effect and that economic and social institutions are the most important push factors of migration.

To quantify the differences in social aspects between countries, studies as Jitmaneeroj (2017), Syrovátka and Schlossarek (2019), etc. have compared the utility of several social indexes. Moreover, many studies analyzed the relationship between indexes of social development and economic indicators (Asandului et al., 2016; Bren et al., 2019). For example, Bren et al. (2019) examined the economic impact on social development (expressed by the Social Progress Index), homeland security (represented by Global Peace Index), and global democracy (expressed by Democracy index). Among other objectives, Bren et al.'s study aimed at finding correlations between these indexes and economic indicators. The results demonstrated that social development, expressed by the social progress index, is correlated positively with economic indicators as gross domestic product and gross national income per capita. In other words, the higher the economic performance of a state, the higher its social development.

1-2 Culture and digital impact on migration

The second part of the literature review is centered on the relationships between culture, technology, and migration. Examples of studies analyzing the impact of culture on migration are White and Buehler (2018), Adserà (2015a), Aleksynska (2011), Geis et al. (2013), Nejad and Young (2016), Migali (2018), etc. For instance, White and Buehler (2018) examined the impact of three cultural distance measures (Inglehart measure, Hofstede measure, and the GLOBE cultural distance) on international migration flows. A valuable input of their research is the decomposition of the cultural distance into their component dimensions to examine how the individual dimensions vary in explaining migration. Their results indicate that dimensions associated with individualism, uncertainty avoidance, and perceived gender roles are more influential in determining immigrant

flows than other cultural dimensions. In general, previous studies use gravity models to explain the determinants of migration decisions and they all confirmed the existence of a negative relationship between cultural distance and immigration flows.

The influence of culture on migration can be studied considering the indirect effects of culture on societal development. In this regard, studies as Krys et al. (2020), Oreg & Sverdlik (2018), Skvarciany & Tereštšenkov (2016) have shown the significant impact that culture has on social progress. For instance, Dan's (2017) study aimed at identifying links between cultural dimensions defined by Hofstede and Schwartz and social progress defined as Social Progress Index. Their results suggested that cultural characteristics, like Hofstede's indulgence and Schwartz's embeddedness and egalitarianism, have a considerable impact on the social development process.

Regarding the influence of digital advancement on migration studies as Chouliaraki & Georgiou (2019), Kotyrlo (2019), Nedelcu (2012), Rodima-Taylor & Grimes (2019), Moon et al.(2010), etc. indicate mixed results, a positive/ negative relationship between changes in ICT development and migration intensity. On one hand, the analyses on this topic emphasize how ICT mechanisms may increase migration flows by creating connected lifestyles, enhancing the capacity to harness otherness and facilitating socialization. On the other hand, it explores the use of digital technologies by migrants, institutions and civil society actors in the processes of empowerment, surveillance and migration control.

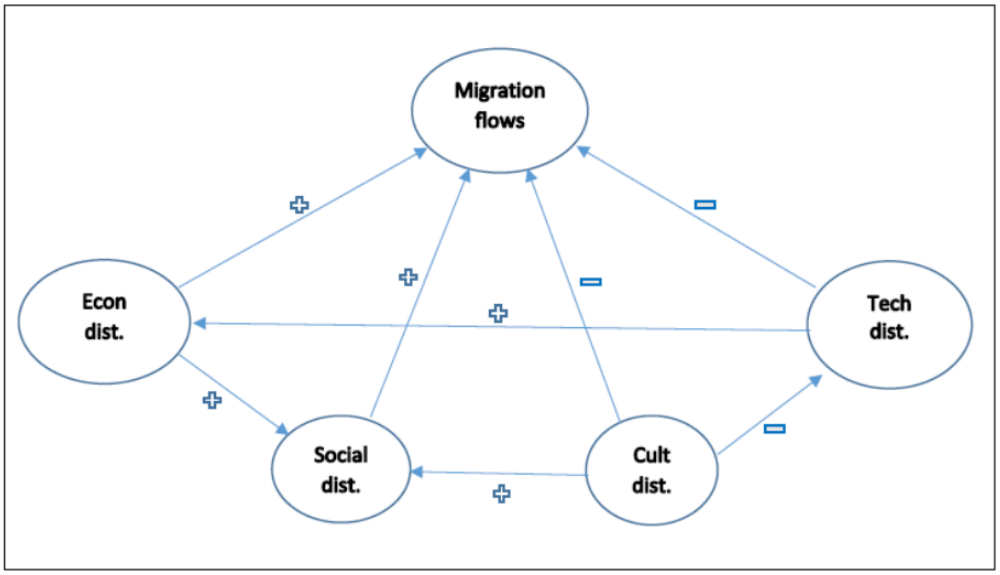
Lastly, there are numerous studies concerned with the impact of digital/technological development on economic development. For instance, it is argued that performances in the digital area create new economic opportunities, especially by creating new jobs, developing high-performing ICT infrastructure, and implementing new generation networks (Russo, 2020). Furthermore, within this area, other studies analyzed not only how digital transformation affects sustainable development, Stavytskyy et al. (2019) , de la Hoz-Rosales et al., (2019), etc., but also, how digital transformation is affected by national culture (Jovanović et al., 2018). In this regard, Jovanović et al. (2018) examined the correlations between the digital economy and society index (DESI) and economic indicators (GDP, Global Competitiveness Index, The Good Country Index, etc.) and the correlations between DESI index and Hofstede cultural dimensions. Their results demonstrate positive correlations between digital development and economic indicators, and negative correlations between cultural dimensions (PDI and UAI) and digital development. On the same research line, studies as Coccia (2014), Zhao (2011), Khalil (2011), Al Hujran et al. (2011), etc., found out positive/negative correlations between national culture and digital development, depending on the cultural dimension taken into consideration.

2. Conceptual framework

Due to its capacity to model complex phenomena between exogenous and endogenous variables, a SEM approach has been adopted. Drawing upon the structure of previous studies was created a conceptual framework that analyzes the determinants of migration flows, taking into account four dimensions: economic, social, cultural, and digital. Each dimension is calculated as the difference in values for each dimensions' specific indicators; in other words, each dimension can be considered as a type of distance between countries that ultimately affect migration decisions. Therefore, the term "dimension" and "distance" can be interchangeable in this context. Furthermore, given the implications of the digital dimension on this subject, the term technological distance is interchangeable with the one of digital distance. As indicated in Figure IV.1, the conceptual framework of this study focuses on:

- The direct effects of each dimension on migration and its indirect effects;
- The mediating role of three dimensions: economic, social, and digital on migration flows.

Figure IV.1 Theoretical hypotheses for the direct and indirect effects of the path model



Source: Authors' elaboration.

Four types of direct effects are tested: the effect of economic distance, the effect of social distance, the effect of cultural distance, and the effect of digital distance on migration flows. The first hypothesis is that economic distance has a positive effect on migration flows; put differently, the higher the distance regarding the economic development between countries, the higher the propensity to migrate. The second hypothesis is the existence of a positive effect of the social distance on migration, meaning that the higher the differences in social progress, the higher the intensity of migration. The third hypothesis is the existence of a negative effect of cultural distance on migration, indicating that the higher the cultural distance between countries, the lower is the propensity to migrate. The last theoretical hypothesis supposes a negative effect between technological/digital distance and migration flows, meaning that higher digital distance between countries lowers migration flows.

The second set of theoretical hypotheses refers to the indirect effects of some of these dimensions on migration flows. In this way, the direct and indirect effects are compared. It can be seen how the direct effect of one dimension on migration changes when another dimension is taken into account. In this regard, the following relationships are hypothesized: the existence of positive indirect effects of economic distance, cultural distance, and digital distance on migration flows. For example, even if a high cultural distance between countries may decrease migration when taking into account differences in social development, it may have a positive effect favoring migration. Lastly, based on the literature review, there were hypothesized the following mediation roles:

- The mediator role of social distance on the relationship between economic distance and migration flows;
- The mediator role of social distance on the relationship between cultural distance and migration flows;
- The mediator role of digital distance on the relationship between cultural distance and migration flows;
- The mediator role of economic distance on the relationship between digital distance and migration flows.

In this view, the conceptual framework put forward in this chapter creates a comprehensive way of analyzing migration decisions, taking into account more than one or two possible determinants.

3. Method, study area, and variables

This chapter presents the method used to estimate the path model, the variables and its indicators, and the study area to which the model has been applied.

3-1 Method

Although regression is the most used technique in migration studies, in the last decade, scholars have begun applying the method of structural equation modeling (SEM). For example, SEM was used in analyzing the impact of environmental factors on migration (De Longueville et al., 2019), the effect of well-being on asylum migration (Paniagua et al., 2020), the effect of income on international migration (Ortegay & Peri, 2013), the effect of immigration policy on immigration flows to Canary Islands (Hernandez Aleman & Leon, 2012), the cultural impact on student migration in Europe (Baláž, 2010). SEM is a powerful statistical technique that can identify complex social science relationships by combining factor analysis and multiple regression analysis. The advantages of using SEM over multiple regression analysis stand in its explicit assessment of measurement errors (which in multiple regression analysis are ignored) and in its capacity to test simultaneous relationships, having the ability to test a full structural model, not only a model containing a single dependent variable as in a multiple regression analysis. Another advantage of using SEM is the ability to link micro (individual-specific differences) with macro perspectives (aggregated indicators) and its considerable potential for theory development through model re-specification (Nunkoo & Ramkissoon, 2011).

SEM is used to either confirm or explore theory; in this regard, there are two types of SEM: covariance-based (CB-SEM) which is used to confirm or reject theories, and, a second type, variance-based structural equation modeling (PLS-SEM), which is primarily used for exploratory research. Having in mind the rules of thumb for choosing between PLS-SEM and CB-SEM developed by Hair et al. (2017), the present research is using PLS-SEM for the following reasons: its goals are to identify key "driver" constructs of migration and to contribute to the development of the existing theories. Secondly, the structural model is complex (it has many indicators), the sample size is small (22 countries) and the data follow a non-normal distribution. Among the key characteristics of PLS-SEM, the following properties are encountered:

- Generally, it achieves high levels of statistical power with small sample sizes;
- It makes no distributional assumptions;
- Works with metric data, ordinal scaled data, and binary coded variables (with certain restrictions);
- Handles complex models with many structural model relations;
- Maximizes the R^2 values and the construct scores are used for predictive purposes and as input for subsequent analyses.

Applying SEM means creating a path model, a diagram used to visually display the hypotheses and variable relationships that are examined when structural equation modeling is applied. A path model has two elements: the structural model that describes the relationships between the latent variables (this element was presented in the section about the conceptual framework), and the measurement model which describes the relationships between latent variables and their indicators. Regarding the latter one, there are two types of measurement modes: reflective and formative measurement models. Given the constructs' conceptualization and the study's aim, this research model uses Mode A (reflective measurement model). Furthermore, the decision of choosing Mode A rests on the following arguments:

- The causal priority is from the construct to the indicators (Diamantopoulos & Winklhofer, 2018);
- The construct is a trait explaining the indicators (Fornell & Bookstein, 1982);
- The indicators represent the consequences of the construct (Rossiter, 2002);
- The items are mutually interchangeable (Jarvis et al., 2003).

The complexity of studying migration may be eased by applying mediation analysis; in other words, mediation helps explain why a relationship between an exogenous and an endogenous construct exists. For instance, mediation may explain why the negative direct effect of increased digital distance between two countries on migration may be counteracted by the positive indirect effect of its corresponding economic and social distances. In fact, studies such as Urzua et al. (2019), Yang and Yang (2020), Grigoryev (2016), etc. employed mediation analysis to grasp migration issues.

3-2 Study area and variables

The path model developed in this research has four exogenous latent variables: economic distance, social distance, cultural distance, and technological distance, and one endogenous latent variable: migration flows. The endogenous variable is represented by Romanian outflows to each of the 21 EU member states for the period 2007-2017. Four indicators form the first exogenous construct: the index of economic freedom, gross domestic product per capita, minimum wage, and total public expenditure. The data for the index of economic freedom was retrieved from the website of *The Heritage Foundation* and the other three variables used for creating the construct of economic distance were retrieved from the Eurostat database. The index of economic freedom, created by *The Heritage Foundation* and *The Wall Street Journal*, measures the degree of economic freedom in the world's nations and is based on 12 quantitative and qualitative factors, grouped into four pillars: the rule of law, government size, regulatory efficiency, and open markets. The index of economic freedom was computed as the average of the difference between the values specific for Romania and the ones of the destination countries. Given that there were no significant variations in time, the GDP/cap, the minimum wage and the total public expenditure (expressed in natural logarithm) were calculated as the difference in the average values between Romania and the destination countries.

The construct of social distance consists of the social progress index for the period 2014-2019. *The Social Progress Imperative* (2020), a non-profit organization, created this index, and it measures the extent to which states provide for the social and environmental needs of their citizens. This index shows the relative performance of nations in three areas: basic human needs (medical care, water, shelter, and personal safety), foundations of well-being (access to basic knowledge, information, and communication, health and wellness, environment quality), and opportunity (individual rights, personal freedom, and choice, inclusiveness, and access to advanced education). Each social progress index was computed as the difference between the values of the destination country and the ones for Romania.

The construct of cultural distance is based on two of Hofstede's cultural dimensions theory (Hofstede et al., 2010): *power distance index* (PDI) and *uncertainty avoidance* (UAI). The former expresses the degree to which the less powerful members of a society accept and expect that power to be distributed unequally. In contrast, the latter describes the extent to which the members of a culture feel threatened by ambiguous or unknown situations. The other four dimensions of the Hofstede cultural model (IDV, MAS, LTO, and IVR) have been excluded after testing for outer loading relevance as recommended by Hair et al. (2017). Excluding those indicators means admitting its potential impact on content validity. Both indicators, PDI and UAI, were calculated as the difference of the values between the destination countries and the origin one.

The last exogenous variable was created using the digital economy and society index (DESI) for 2014-2019. The digital economy and society index is a composite index that outlines indicators on Europe's digital performance and EU' member states competitiveness. DESI index comprises five dimensions: connectivity (related to fixed and mobile broadband coverage), human capital (internet user skills and advanced skills and development), use of internet services (internet use, activities online and transactions), integration of digital technology (business digitization and e-commerce) and digital public services (indicators related to e-Government). Each DESI index

was computed as the difference of the values between the destination countries and the origin country.

An observation has to be made about several indexes, such as SPI and DESI, which were available after 2014. Still, given that the differences in these indicators do not exhibit considerable variation in time, it has no significant impact on the construction of these constructs. A list of each constructs' indicators, including the database' sources, is presented in Table A.5 (Appendix B).

The study area is centered on the outflows from Romania to the following countries: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain and Sweden for the period 2007-2017. Due to data unavailability, there were chosen only 21 countries and, the research is focusing on Romania due to its significant outflows in the last years and its consequences on the Romanian economy. For instance, in a World Bank report (2018) was argued that, between 1990 and 2017, Romania registered the highest increase in the migration stock, at 287 percent. This large outflow affected especially the Romanian working population (both high skilled and low skilled), given that the working-age emigrants exceed 2.65 million persons, and lead to significant labor supply shortages. Furthermore, the same report analyzed the socio-economic consequences of emigration, claiming that the positive impact of remittances and return migration on economic growth was partially offset by the negative impact of skilled emigration. Also, the social impact of emigration has mixed results. On the one hand, remittances reduced poverty and inequality within regions and between rural and urban areas. On the other hand, Romanian emigration had adverse effects on family structures, leading to marginalization, exclusion, and a lower participation rate in the education of children with both parents working abroad.

Secondly, a better understanding of migration drivers can provide us with grounds for policy solutions to offset the negative consequences of migration in the origin countries. Whereas the results of this study may seem to offer policy insights primarily applicable to the Romanian case, its implications for other countries cannot be ruled out. For instance, the policy recommendations made in the conclusions, which are essentially stressing the need to make more investments in digitalization and societal development in the origin country can be seen as a lesson for the future countries which are in the process of joining the EU or aspire to EU accession which may face similar outflows and constraints on their economies.

4. PLS-SEM results and interpretation

The PLS path model developed in this study is estimated with SmartPLS software (SmartPLS GmbH, 2020). The next subchapters focus on a systematic evaluation of PLS-SEM results involving two steps: the evaluation of the reflective measurement model and the evaluation of the structural model.

4-1 Evaluation of the reflective measurement model

The evaluation of the reflective measurement model supposes analyses of reliability and validity (Hair et al., 2019). The reliability analysis provides information about the reliability based on the intercorrelations of the observed indicators' variables and is formed by:

- Indicator reliability is measured by the indicator's outer loadings, which should be higher than 0.70. If the indicators' outer loadings are between 0.40 and 0.70, they should be considered for removal if their deletion increases composite reliability. This happened in the case with four dimensions from the Hofstede cultural model, which have been removed from the analysis after testing their impact on composite reliability. Besides, the indicators "Outflows_1" and "Econ_1", although having values lower than 0.7 (0.687 and, respectively 0.640), have been kept given their significant impact on the construction of the variables;

- Internal consistency reliability is measured by composite reliability (in exploratory research, 0.60 to 0.70 are considered acceptable) and Cronbach's alpha.

The validity analysis includes:

- Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct. A common measure to establish convergent validity is average variance extracted (AVE), and an AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators.
- Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards and is measured by cross-loadings analysis, Fornell-Larcker criterion analysis, or HTMT (heterotrait-monotrait ratio of the correlations) criterion. The discriminant validity for this model is tested using the HTMT criterion by running complete bootstrapping with bias-corrected and accelerated bootstrap confidence intervals.

Table IV.1 presents the results of the reflective measurement models assessment. As it can be observed, all model evaluation criteria have been met, providing support for the measures' reliability and validity.

Table IV.1 Results Summary for reflective measurement model

Latent variables	***Indicators***	***Reliability Criteria***			***Validity Criteria***	
		Indicator Reliability	**Internal Consistency Reliability**		**Convergent Validity**	**Discriminant Validity**
		Loadings	Composite Reliability	Cronbach's Alpha	AVE	HTMT Criterion
		>0.70	0.60–0.90	0.60–0.90	>0.50	HTMT confidence interval does not include 1
Migration flows	Outflows_1	0.687	0.977	0.973	0.795	Yes
	Outflows_2	0.785				
	Outflows_3	0.904				
	Outflows_4	0.964				
	Outflows_5	0.990				
	Outflows_6	0.987				
	Outflows_7	0.945				
	Outflows_8	0.894				
	Outflows_9	0.873				
	Outflows_10	0.867				
	Outflows_11	0.864				
Econ dist.	Econ_1	0.640				

	Econ_2	0.913	0.906	0.857	0.711	Yes
	Econ_3	0.897				
	Econ_4	0.893				
Social dist.	Social_1	0.988	0.997	0.997	0.984	Yes
	Social_2	0.989				
	Social_3	0.995				
	Social_4	0.995				
	Social_5	0.995				
	Social_6	0.988				
Cult dist.	Cult_1	0.883	0.869	0.697	0.768	Yes
	Cult_2	0.870				
Tech dist.	Tech_1	0.995	0.999	0.999	0.994	Yes
	Tech_2	0.997				
	Tech_3	0.998				
	Tech_4	0.999				
	Tech_5	0.997				
	Tech_6	0.995				

Source: Authors' elaboration based on SmartPLS results.

4-2 Evaluation of the structural model

The criteria for assessing the structural model are the inner VIF values, the statistical significance of the path coefficients, the level of the coefficient of determination (R^2), the f^2 effect size, the predictive relevance Q^2, and the q^2 effect size.

To assess collinearity, each construct has been examined through the inner VIF values. As Table IV.2 shows, all the constructs have values close to three and lower, indicating no collinearity issues.

Table IV.2 VIF values in the structural model

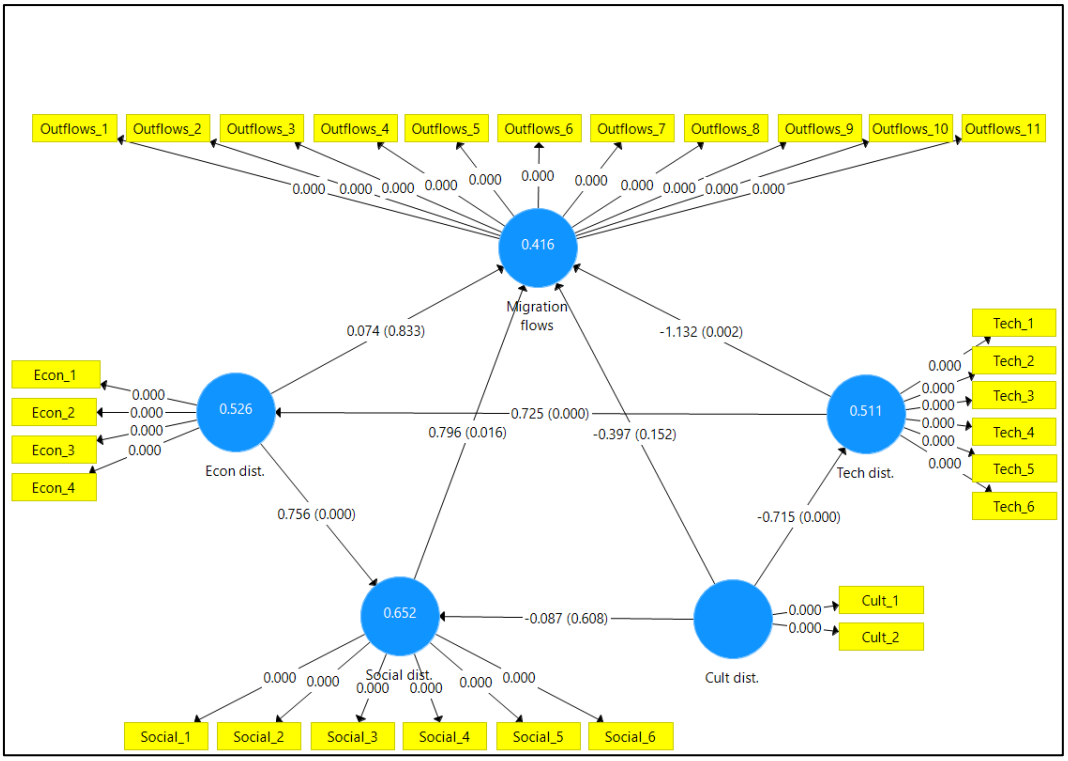
	Cult dist.	***Econ dist.***	***Migration flows***	***Social dist.***	***Tech dist.***
Cult dist.			2.096	1.468	1.000
Econ dist.			3.210	1.468	
Migration flows					
Social dist.			3.451		
Tech dist.		1.000	3.553		

Source: Authors' elaboration based on SmartPLS results.

Figure IV.2 presents the statistical significance of the path coefficients, obtained by 500 bootstrapping subsamples with a 5% significance level. The analysis of the direct effects of the four distances on migration flows confirms the relationships hypothesized in the section with the conceptual framework. More specifically, the results indicate:

- A positive effect (0.074) of economic distance on migration flows; put differently, the higher the distance regarding the economic development between countries, the higher the migration flows.
- A positive significant effect (0.796) of social distance on migration flows; meaning that, the higher the differences in social progress between countries, the higher the intensity of migration.
- A negative effect (-0.397) of cultural distance on migration flows, indicating that the higher the cultural distance between countries, the lower are the migration flows.
- A negative significant effect (-1.132) of digital distance on migration flows, meaning that increased digital distance between countries lowers migration flows.

Figure IV.2 PLS-SEM Path Coefficients Results



Note: P-values are presented in parenthesis.

Source: SmartPLS software.

The third criterion for assessing the structural model is the level of the coefficient of determination (R^2). The R^2 value of the structural model is 0.416, indicating that 42% of the variance of migration flows can be explained by this model. The effect size f^2 allows assessing an exogenous construct's contribution to an endogenous latent variable's R^2 value. In this regard, f^2 effect sizes of several distances on R^2 have been assessed. Applying the formula developed by Hair et al. (2017), the f^2 effect sizes of economic, social, cultural, and digital distance on migration flows' R^2 are 0.001, 0.351, 0.126, and 0.618, suggesting that digital and social distance have the largest impact on migration flows, followed by cultural distance (which has a medium effect) and economic distance (small effect).

To test the predictive relevance, the Q^2 value was computed by blindfolding procedure (setting at six the omission distance). The resulting Q^2 value is 0.28, demonstrating that the exogenous constructs, the economic, social, cultural, and digital distances have predictive relevance for the endogenous construct: migration flows. The Q^2 value represents a measure of how well the path model can predict originally observed values, and the relative impact of predictive relevance can be compared by measuring q^2 effect size. Using the formula stated by Hair et al.

(2017), q^2 effect sizes of economic, social, cultural, and digital distances on migration flows' Q^2 value are -0.001, 0.20, 0.08, and 0.38. Having in mind that q^2 values of 0.02, 0.15, and 0.35 indicate that an exogenous construct has a small, medium, or large predictive relevance, it can be argued that digital distance has a large predictive relevance for migration flows, social distance has a medium-large predictive relevance, cultural distance has a small-medium predictive relevance, and economic distance has no predictive relevance.

The above analysis indicates that disparities in social and digital advancements (as measured in this research) are key drivers of migration flows. The three dimensions that form social distance (basic human needs, foundations of wellbeing, and opportunity) are essential in understanding migration. In this regard, policymakers from the origin countries should focus their attention on policies aimed at improving access to nutrition and basic medical care, access to basic education, to information and knowledge both from inside and outside their country. Also, their efforts should target the protection measures of the natural environment and improved opportunities in achieving personal rights, personal freedom, and access to advanced education and inclusiveness.

Another important factor that helps understanding migration flows is digital performance, this study demonstrating that the higher the discrepancies between states in digital performance, the lower the propensity to migrate. In this view, the five dimensions through which the digital distance was measured: connectivity, human capital/digital skills, use of internet services, integration of digital technology, and digital public services constitute fundamental areas that need improvements. More specifically, in the origin country policymakers should put more efforts aimed at increasing the broadband coverage by households, at increasing the percentage of the population having basic digital skills, and at creating more online channels of performing public services. Additionally, efforts of digitalization should also come from the enterprises in the origin country by increasing the use of cloud services and e-commerce.

5. Mediation analysis results

The last section of this chapter focuses on the results of the mediation analysis. Mediation occurs when a third mediator variable intervenes between two other related constructs and, therefore, a mediator variable governs the nature of the relationship between two variables.

To test the mediation roles hypothesized in the second section, the significance of the direct and indirect effects is tested through bootstrapping (Table IV.3). Applying the procedure of mediation analysis developed by Hair et al. (2017), it can be argued that there is no mediation of social distance on the relationship between economic distance and migration flows. Secondly, there is no mediation of social distance on the relationship between cultural distance and migration flows. Thirdly, there is full mediation of digital distance (significant indirect effect of 0.809) on the relationship between cultural distance and migration flows. In other words, even if a high cultural distance between two countries may deter migration flows, increasing digitalization in origin and the destination countries encourage migration flows. This result is linked to the findings from the previous section stressing once more the importance of digital performance on migration. Lastly, the results indicate that there is no mediation of economic distance on the relationship between digital distance and migration flows (there is a significant direct-only effect of -1.132).

In addition, these results partially confirm the hypotheses stated in the section about the conceptual framework since:

- Firstly, it demonstrates the existence of positive indirect effects of economic distance and digital distance on migration flows, and
- Secondly, it shows a positive or negative indirect effect of cultural distance on migration, depending on the mediator (a high positive effect of 0.809 on the path Cult dist. → Migration flows - via tech dist. and a light negative effect -0.069 on the path Cult dist. → Migration flows – via Social dist.).

Table IV.3 Significance analysis of the direct and indirect effects

	Direct Effect	*95% Confidence Interval of the Direct Effect*	*t Value*	*Significance (p < 0.05)?*	*Indirect Effect*	*95% Confidence Interval of the Indirect Effect*	*t Value*	*Significance (p < 0.05)?*
Econ dist. → Migration flows (via Social dist.)	0.074	[-0.738, 0.816]	0.185	No	0.601	[-0.146, 1.372]	1.503	No
Cult dist. → Migration flows (via Social dist.)	-0.397	[-0.919, 0.110]	1.362	No	-0.069	[-0.598, 0.181]	0.360	No
Cult dist. → Migration flows (via Tech dist.)	-0.397	[-0.919, 0.110]	1.362	No	0.809	[0.220, 1.447]	2.320	Yes
Tech dist. → Migration flows (via Econ dist.)	-1.132	[-1.791, -0,233]	2.936	Yes	0.054	[-0.465, 0.670]	0.177	No

Source: Authors' elaboration based on bootstrapping results.

The last step is the analysis of the significance of the total effects. Table IV.4 summarizes the results of the total effects of the exogenous constructs (economic, social, cultural, and digital distance) on the target construct, migration flows, and also their total effects on the mediator variables. The results containing the coefficients of the total effects, *t*-Values, *p*-Values, and 95% confidence intervals were taken from the table of the bootstrapping results. As it can be observed, all total effects are significant at a 5% level, except for the total effect of cultural distance on migration flows. As was acknowledged at the beginning of this chapter, the other four dimensions from Hofstede's cultural model have been excluded given that they were not complying with reliability criteria. Therefore, this may be a possible explanation for the low significance level of this total effect.

Table IV.4 Significance testing results of the total effects

	Total Effect	*t Values*	*p Values*	*95% Confidence Intervals*	*Significance ($p < 0.05$)?*
Cult dist. → Econ dist.	-0.518	5.350	0.000	[-0.670, -0.281]	Yes
Cult dist. → Migration flows	-0.008	0.051	0.959	[-0.288, 0.258]	No
Cult dist. → Social dist.	-0.478	3.186	0.002	[-0.710, -0.140]	Yes
Cult dist. → Tech dist.	-0.715	7.588	0.000	[-0.835, -0.455]	Yes
Econ dist. → Migration flows	0.676	2.706	0.007	[0.205, 1.125]	Yes
Econ dist. → Social dist.	0.756	4.653	0.000	[0.356, 1.028]	Yes
Social dist. → Migration flows	0.796	2.007	0.045	[-0.330, 1.377]	Yes
Tech dist. → Econ dist.	0.725	9.206	0.000	[0.514, 0.823]	Yes
Tech dist. → Migration flows	-0.642	1.993	0.047	[-1.231, 0.042]	Yes
Tech dist. → Social dist.	0.548	4.142	0.000	[0.249, 0.809]	Yes

Source: Authors' elaboration based on bootstrapping results.

6. Conclusions

This research adds a well-developed model to the literature about the key drivers of migration. In a world of intensified globalization where interconnectivity is increasing day by day, it seems almost mandatory to include technological/digital aspects in explaining migration issues. Comparing it with other techniques, this path model created through structural equation modeling offers a comprehensive perspective over migration determinants, taking into account four dimensions: economic, social, cultural, and digital.

The path model developed in this exploratory research rests on hypotheses already stated in the literature. The results confirm the findings of previous studies, stressing the fact that social and technological developments have significant impacts on migration. The results indicate that the propensity to migrate is higher when there are increased wealth differentials between origin

and destination regions and that propensity to migrate is greater when the dissatisfaction with the social conditions from the origin areas is rising. More specifically, it was demonstrated that economic distance has a positive effect on migration and that social distance has a positive significant effect on migration flows. Furthermore, the findings suggest that migration flows are decreasing when the cultural differences between countries are increasing, especially when examining *power distance* and *uncertainty avoidance*. This result points out that high differences in the attitudes toward authority and uncertain situations affect migration negatively. Fourthly, the findings suggest that migration flows decrease when the differences in digital performance increase, indicating that digital distance has a negative significant effect on migration flows. In this regard, increasing EU investments in ICT development and digital competences is crucial since it will diminish intra-EU discrepancies in technology use, and it will foster economic competitiveness.

The results of the mediation analysis indicate the existence of a full mediation effect of digital distance on the relationship between cultural distance and migration flows. In other words, even if a high cultural distance between countries may impede migration, advancements in digital technologies have a counteractive effect, favoring migration.

Drawing upon the above-mentioned results, this research has several noteworthy implications. Firstly, as in the studies about the relationship between digital and economic development, there is a need to study more thoroughly the impact of digital performance on migration studies. Secondly, it draws particular attention to the social and digital developments in the origin countries. On this subject, these findings open up the debate on the necessity to adopt more measures targeted at improving digital performance and societal development in the origin countries. More investments in digitalization and social advancement in the origin areas means reduced disparities between these regions and the destination ones and better management of migration flows. Furthermore, these instruments will help improve subjective well-being (Clemens et al., 2014; Stillman et al., 2015) and reduce social exclusion (Novo-Corti et al., 2019; Picatoste et al., 2018), two of the main issues regarding the effects of migration on wellbeing. On the one hand, this research has several shortcomings due to data unavailability regarding the Romanian migration flows to specific EU countries and the unavailability of specific indexes for Romania. On the other hand, future versions of this research may bring improvements in the theoretical framework (the model may include more dimensions) or/and in the application area (the model can be applied to other countries). Nevertheless, this study enriches the existing literature with an original well-developed path model that explains the complex relationships between migration flows and its key drivers.

Chapter V Influence of culture and migration in reducing poverty and inequality

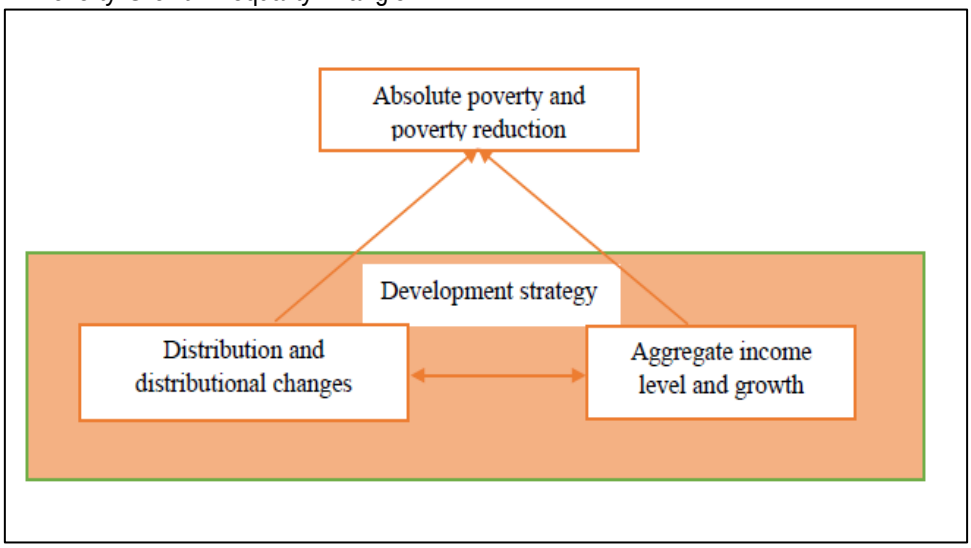
The 2030 Agenda for Sustainable Development adopted in September 2015 by United Nations created a significant step forward for sustainable development in many areas, and especially for culture, as it was the first time when the international agenda refers to culture within this framework. In addition, the agenda recognizes for the first time the input of migration to sustainable development. Given the fact that targets and indicators relevant to migration or mobility are present in 11 out of 17 goals, migration is considered a cross-cutting issue, relevant to all Sustainable Development Goals. Previous studies showed that specific economic processes might increase inequalities among natives and migrants. Efficient management of migration flows diminishes these inequalities and decreases poverty. Therefore, the following subchapter presents the link between poverty, inequality, and growth, with a special emphasis on disparities between migrants and non-migrants. The second subchapter focuses on highly skilled migrants and gender inequality. Finally, the third subchapter introduces development strategies targeting migration but grounded on the view of culture as sustainable development.

1. Poverty, inequality, and growth

The relationship between growth and inequality has significant consequences on poverty reduction and vice versa. Income and non-income inequalities impede the growth process, leading to stagnation or perpetuation of poverty. The lack of opportunities for building human capabilities and unequal access to other tangible productive assets are the main forms of inequality (UN, Department of Economic and Social Affairs, 2013). One of the most encountered types of inequality is limited access to quality education and health care, which not only excludes people living in poverty from sharing the benefits of growth but also limits social and economic mobility. In this context, the quality of institutions and national social policies play a crucial role in determining the level and direction of these inequalities.

The inequality-poverty-growth nexus illustrated in Figure V.1 presents the codependent relationship between these three. Developed in 2003 by the chief economist of the World Bank, François Bourguignon, the model indicates that a country's change in poverty can be fully determined by its change in income growth and income distribution or inequality (Bourguignon, 2004). The model is based on the assumption that accelerated economic growth is the main determinant of reducing poverty and that distributional changes can constrain poverty. The representation of the model is a triangle with arrows pointing out, indicating a cause-effect relationship. At the top of the model is absolute poverty, the proportion of the population below a particular poverty line, on the left it is represented inequality, meaning the disparities in relative income across a population, and on the left part is growth that means the percentage change in mean welfare level or income. An extended version of this model may value the cultural considerations in creating development strategies, in the way explained in the third part of this chapter when culture is defined as sustainable development in itself. This addition is represented below by adding the orange font to the development strategy.

Figure V.1 Poverty-Growth-Inequality Triangle



Source: own elaboration based on Bourguignon's model (2004)

According to this model, the change in poverty is defined as a function of growth, distribution, and the change in distribution. As it can be observed from the above figure, a development strategy must include policies based on income growth and income inequality. Recent studies demonstrated that Bourguignon's model holds and that growth and inequality have a significant impact on absolute poverty. Grammy and Asane's paper (Grammy & Djeto, 2006), using data on 66 developing countries over specific periods between 1970 and 1998, demonstrated that improvements in income distribution are the main key to reduce poverty. Furthermore, the study demonstrates that by testing the separate and the composite impact of income distribution and growth on poverty, the composite impact of these two is more significant in reducing poverty than the separate ones. Furthermore, Khan et al. (2014) examined the long-run relationship between poverty index, inequality index, and average per capita income for 138 countries over the period 2005-2010. They analyzed the impact of economic growth and income inequality on poverty. The results reflect that income inequality increases poverty while economic growth decreases poverty.

The goal of reducing poverty may be achieved more rapidly in egalitarian societies and in countries where initial levels of mild inequality have been followed by an outburst of growth. On the other side, it has been observed that measures of reducing poverty are not efficient in countries with large income stratifications, with low development levels, or inadequate social protection policies (Fosu, 2011; H. White & Anderson, 2001). Thus, as indicated above, redistribution programs without competitive economic stimuli undermine sustainable economic growth. The interplay between poverty, growth, and inequality is very delicate. Designing growth programs alone does not assure poverty reduction; therefore, to reduce poverty sustainably a necessary condition is to invest in human capital (education, health, and food security).

A symbol of inequality, whether in terms of income, opportunities, education, etc. is migration. Taking different forms, internal mobility or across borders, millions of people move annually to reduce the perceived gap between their actual status and that of other people from wealthier regions/countries. In general, many of these migrants end up better off than they would have been if they did not move. Still, migration bears also significant risks and costs and its payoffs depend on many other factors. Poor access to good education and health services, lack of political rights, taking jobs in the informal sector, gender barriers, and other stereotypes limit not only the opportunities available to them but also their migration outcomes. Although there are many gains from migration, migrants face barriers and inequalities in comparison with the ones from the origin countries or those from the destination countries.

1-1 Disparities between the ones who move and the ones who stay in the origin countries

Increased poverty and inequalities create economic crisis which leads people to migrate to find better-paid jobs, to offer better educational perspective to their children, to have better access to health care and other services, to gain more empowerment and independence, etc. (Novo-Corti et al., 2019; Ruesga Benito et al., 2018).

The departure of emigrants has several impacts on the origin country, leading to inequalities between the ones who moved and the ones who stayed. Firstly, an impact is at the household level, and the main challenge is how the household is coping with the fact that parts of its labor have left. In the poorest countries, the loss of a working-age contributing member usually leads to a reduction in output or an increase in labor supply, which, in many cases, may push its members to accept jobs that normally they would not accept. The empirical studies suggest that members staying back work less, may be obliged to spend more time in unpaid work (Mendola & Carletto, 2009), or they even can make their children work (at the expense of their education), particularly when mothers leave (Sarma & Parinduri, 2016). Moreover, the lost labor due to emigration may pose specific challenges for members of agricultural households and women (Sadiqi & Ennaji, 2004). In such households, this loss is stronger, pushing their members at subsistence levels further into poverty.

Besides, there is evidence demonstrating that women in emigrant households accepted jobs traditionally held by men. In cases where there is a high dependency ratio, the ratio of children and elderly to those of working age living in the household, members organize different their labor, dedicating more time to child-rearing and elderly assistance and less time dedicated working for an income. As indicated in an OECD report from 2016 (OECD, 2016), in these cases, many agricultural households hire outside labor as a coping mechanism. Moreover, emigration affects the social aspects of a household. The psychological costs to the households include family disintegration, detriments to the social and psychological development of the children left in the origin countries. Evidence suggests that, in the short run, children left behind by immigrant parents may be sent to work, are more likely to experience lower academic performances, declining attendance, and lack of motivation. Furthermore, the cases of labor migration from Moldavia and Ukraine (Yanovich, 2015) demonstrated that children who are left behind experience even drug trafficking and exploitation.

Beyond the households directly implicated, emigration has a generalized impact on the origin country's society and economy. It became easier for skilled workers to move and harder for lesser skilled ones and, in this context, emerged the debate on brain drain. This phenomenon has a significant impact particularly on small and poor countries, where the educated share of the population is small. The brain drain, especially the one in the medical field, is well documented in studies about east-west migration or south-north migration in Europe, especially for the case of Croatia, Greece (Ifanti et al., 2014), Poland, and Bulgaria (Guth & Gill, 2008), Romania (Feraru, 2013), etc.

Beyond the brain drain of tertiary-educated peoples, many studies emphasized that emigration reduces the factor of production of a country, meaning that it reduces the growth potential of an economy. This latter perspective gives more importance to the skills and ability with which all individuals can contribute to society, independent of their present skill level. This type of perspective is encountered mostly in studies about country-level effects of 2004 and 2007 EU enlargements. Recurrent themes encountered in the studies about emigration from Lithuania, Poland and Romania are skill and labor shortages in the construction and health care sectors (Zaiceva, 2014). These shortages caused increased workload and deteriorated the working conditions of health care employees.

Another from through which emigration affects the origin country is remittances. In this regard, migration plays a significant role in the achievement of Goal 1, target 1.a regarding the mobilization of resources to provide adequate and predictable means for developing countries.

More specifically, remittances may improve infrastructure, services, and development at the local and national level in the origin countries. In this regard, migration has a positive contribution to inclusive growth and sustainable development in the origin countries.

Despite their advantages: increases country creditworthiness, increases stable consumption and production levels, may create future investments in human capital, health, etc. they also have negative consequences. Among them, remittances may reduce labor supply since it acts as a substitute for labor income, and it may reduce the incentives for family members to work in the origin areas. The effect of remittances on inequality is mixed, empirical studies demonstrating that, in the short run, it may result in a decrease in inequality, but in the long run, its effect is limited (World Bank, 2005).

1-2 Inequalities among natives and migrants in the destination countries

Migration not only creates disparities in the origin countries, but it also creates disparities in the destination countries. The disparities between natives and migrants in the destination country came out when looking at the literature about the immigrants' impact in the destination country. Within this literature, four main lines of research may be identified: the first one analyzes the role played by foreigners in the labor market, the second line studies immigrants' integration into the structure of wages and jobs. The third line examines the immigrants' contribution to the economic development of the destination country and the fourth line of research explores the immigrants' impact on social expenditure (Venturini, 2004).

Poverty and inequalities fall within the third line of research. Bearing in mind the level of human capital of foreign workers, the literature indicates a positive effect on the growth of income per capita in the destination country if the foreigner's human capital is higher than the native's one, and vice versa if its capital is lower. Furthermore, studies showed that the migration of skilled workers reduces income inequalities in the origin countries, but may increase the disparities in the destination country (Davies & Wooton, 1992). Several types of disadvantages are often reflected between immigrants and natives. Studies from developed countries indicate that, even at comparable levels of education, immigrants experience higher unemployment rates, have a lower income, and the probability to work in informal jobs is higher. An OECD report on the quality of immigrants' jobs indicated that overqualification rates among foreign-educated immigrants in European Union are double compared to their peers who hold qualifications from the host country (OECD, 2015). Analyzing over qualification by migration status and background for 2014, over a third of first-generation immigrants with a tertiary degree worked in a job that did not require that level of education as compared with around a fifth of native-born residents with native backgrounds (Eurostat, 2016a). Poor knowledge of the destination country's language, irregular status, discriminatory behavior, and social barriers generates inequalities and push migrants toward poverty. In the EU, only 10% of the immigrants (9% of those born in another EU country and 12% of those born in a non-EU country) declared to know the language of their country of residence at a basic level (Eurostat 2016). Regarding irregular immigration in the EU, a briefing of the European Parliament from 2015 reported that the total number of persons illegally present in the EU in 2014 was 547.335, the top nationalities being Syria, Eritrea, and Afghanistan (Sabbati & Poptcheva, 2015). Unfortunately, there are no many studies about the effect of irregular migrants on the EU labor market, but studies applied to different US states found that irregular workers increased the competition between employers and lead to replacements of unionized legal workers (Mines & Martin, 1984).

Regarding discrimination and social barriers, a FRA's report from 2017 on EU-MIDIS II, the second European Union Minorities and Discrimination Survey, shows that a considerable proportion of respondents face a high level of discrimination because of their ethnic and immigrant background, as well as other characteristics, such as skill color and religion. Regarding the former category, the results indicated that, among all the groups surveyed, respondents with North-African

background, with Roma background, and Sub-Saharan African background faced the highest levels of discrimination (European Union, 2017). Furthermore. EU-MIDIS II findings show that experiencing discrimination and victimization has a strong negative impact on respondents' levels of trust in public institutions and their feeling of belonging to the destination country (European Union 2017).

The labor market situation of immigrants in the EU indicates that, between 2008 and 2014, most groups registered a decrease in activity and employment rates and an increase in the unemployment rates. This trend affected mostly first-generation immigrants with non-EU origins and native-born. The second-generation immigrants with EU origins presented the highest values of employment rates in 2014, while the highest decrease in the employment rate was registered among first-generation non-EU immigrants. Regarding unemployment, the groups with the highest rates are women, youth, and immigrants born outside the EU (Eurostat, 2016b).

Linking migration to Goal 1, targets 1.1 and 1.2, the literature review confirms that migration is a powerful reduction strategy for migrants themselves and their families in the origin countries. The benefits of migration are higher or lower depending on the migration channel they enter, those with regular status usually having more benefits. In this regard, special attention should be given to the role of labor migrants in the destination countries due to discrimination, poor working conditions, and a higher level of impoverishment (mainly caused by sending a great part of their disposable income as remittances).

2. Highly skilled migration and gender inequality

Migration is built on different types of social, economic, and gender inequalities. In the last decades, we witnessed growing attention on women within migration studies, denominated as the feminization of migration. This phenomenon does not come as a result of the increased share of women in international migration flows but came under the impact of women movements and feminist studies as a reaction to the invisibility of women in traditional migration research.

More recently, this increased attention to female migrants constituted the preliminary phase of a transformation from a sex perspective to a gender perspective in migration studies (Carling, 2005; Grieco & Boyd, 1998; Lutz, 2010; Timmerman et al., 2015). That is creating the shift from a merely biological difference between men and women to a sociocultural defined meaning that is contextual, dynamic, and relational. Nonetheless, this new perspective in migration studies hardly penetrates the core of migration theory and migration policies. Therefore, this research aims at bringing a significant contribution to a gender-sensitive migration theory.

Moreover, the insertion of gender relations into migration studies is even more important for effective labor policy-making. A warning signal comes from the literature about gender, migration, and development that stress the lack of studies concerning the consequences of highly skilled migration in the destination countries (Bastia et al., 2020; Czaika, 2018; Kofman, 2012; Piper, 2017). Another alarming indicator is that scientific and political debates are more focused on controlling or reducing low-skilled, asylum, and irregular migration, encouraging the return migration of these categories, and are less focused on policies to attract or retain high-skilled workers. In this regard, this chapter aims at filling this gap in the literature, by providing an understanding of the drivers and consequences of highly skilled female migration in the destination country from a gender perspective.

2-1 Issues in conceptualizing the category of highly skilled migrants

Very few studies are concerned with the gender experiences of highly skilled migrants, and the cases in which this issue was raised were mainly done in male-dominated sectors. In this context, this research aims to enrich this literature by studying the experiences of highly skilled women migrants in academia. Even if the field of interest is academia and, therefore, the existence of gender biases is reduced, it is of high importance to check if this perception stands true in the

face of reality. In this light, this research not only provides us with valuable theoretical development in understanding aspects related to the migration of highly skilled but also has important implications on education policies.

The conceptualization of highly skilled migrants is a complex issue given that its definition is state-driven; in other words, the state sets the rules of entry through visa categories and eligibility criteria. Moreover, this process depends on data availability and the research function; the concept's definition fluctuates depending on who is talking (there are different approaches favored by economists, others by sociologists or by policymakers). In this regard, Weinar and von Koppenfels's (2020) review of the literature on highly skilled migrants indicate that there is no consistent definition or measurement of highly skilled. They argue that the definition of highly skilled is context-dependent, being adapted to particular needs, a fact which is more utilitarian than academic. However, the three criteria most used in the literature to specify who may be categorized as a highly-skilled migrant are education, skills, and income levels. Out of these three criteria, the very concept of skills is controversial, becoming a central point of scholarly interest. As tertiary education stopped being the primary indicator of a highly skilled in immigration policies, the next question that arose was what type of skills makes somebody a highly skilled person. Nowadays, this definition continues to be country-specific (even within the European Union), depending on the needs of the labor market.

More recently, scholars began contesting the conventional definitions of highly skilled migrants, pointing out that immigration policy overlooks many highly skilled migrants who are not identified as such. For instance, administrative data do not capture international students who come as students but they may be highly skilled in some fields; nor highly skilled who may accept migrating as low skilled workers; nor skilled refugees or spouses who enter as asylum seekers or through the family channel. The difficulty of determining a clearly defined category of the highly-skilled, as argued by Parsons et al. (2015), is influenced by three major discordances. First, a definitional discordance by which a migrant is defined as highly skilled or not upon the variables used to define them (for example, tertiary education defined as a 2-year college education or Master degree). Secondly, an occupational discordance when the same individual may be classified as highly skilled or not depending upon the occupational classification used to record them. Thirdly, a policy discordance whereby the skills of persons having the same profession are valued differently by nation-states depending on the prevailing migration policies (for instance, the different types of entry channels).

At the EU level, salary together with educational attainment have been at the core of the definitions of highly skilled. For instance, The European Union Blue Card (2018) adopts educational criteria as well as wage criteria. During this research, we adopt the definition of highly qualified migrant proposed by the European Commission: “a person with qualifications as a manager, executive, professional, technician or similar, who moves within the internal labor markets of trans-national corporations and international organizations, or who seeks employment through international labor markets for scarce skills” (European Commission, 2016).

2-2 Theoretical developments on the relationship between highly-skilled migration and gender

Even though in the past decades there was a growing emphasis on skills and migration (Docquier et al., 2009; European Commission, 2002, 2020; Solimano, 2008), there seems to be a scarcity of studies analyzing the gender experiences and obstacles of highly skilled migrants (Kofman, 2000, 2004, 2012). This lack of interest in studying skilled migrant women is explained by:

- The increased focus on women’s role in domestic and caring sector created by the increased demand for migrant labor in countries in which family was expected to provide care for children and elderly (Southern Europe and Germany);

- The focus on the skills for the occupations in the knowledge economy (finance, science, and technology) which seems to be associated with male migrants;
- The unfounded assumption that migrant women not employed in skilled sectors do not possess skills, assumption falsely applied to wives who entered through family migration programs or who come to join a partner.

Nevertheless, scholars have begun to compare migration by gender differences in male-dominated sectors, such as the ICT sector (Raghuram, 2008), medicine (Becker, 2019), academia (Czarniawska & Sevón, 2008), business and economics (Albrecht et al., 2018; Grigoleit, 2010) and science (Ackers et al., 2007; Grigoleit-Richter, 2017; Scheibelhofer, 2012). The majority of these studies focus on the opportunities and challenges related to employment and working conditions in the destination country. For instance, Liversage (2009) studied the difficulties suffered by highly skilled women in the post-migration process that are caused by four main factors: the type of skills (women possess skills in domains as medicine and teaching, where qualifications can be more difficult to transfer). Another cause is the type of entry, suggesting that entering as dependents instead of work migrants generates additional work-related obstacles. Another cause is gendered family divisions of work given that women hold a higher responsibility for childcare and, lastly, another cause is labor market discrimination.

Moreover, Ressia et al.'s (2018) study on the experiences of 16 skilled women who migrated to Australia stressed the variety of strategies used to gain employment, such as enrolling in English language studies, taking part-time jobs, switching from high skilled careers to feminized jobs (such as childcare), finding any type of job to gain local experience. In general, studies found out that, when highly skilled immigrant women are unable to gain work based on their original qualifications, they follow one of these three paths:

- They enter work at a low level and work up from there;
- They re-educate themselves in their old fields or new ones, or
- They return to the origin country, where they find jobs according to their pre-migration qualifications.

In all these studies, the primary issue raised concerning gender was family and caring responsibilities. The inability to access childcare, women's feeling that taking care of their children is their responsibility, and having husbands working away from home or studying to increase their qualifications led women to prioritize family over their career, which, ultimately, hindered women's access to employment.

Apart from the employment trajectories of highly skilled women, other studies also addressed the question of identity, belonging, and networking in the post-migration process (Colakoglu et al., 2018; Goulahsen, 2017). Although based on the experiences of a mix of high and low-skilled female migrants, Goulahsen's (2017) analysis brings insights into migrants' identities. The results of her study highlight the complexity and difficulty that migrants face when asked to define their identity and belonging, many employing concepts as hybridity (the feeling of being in two cultures), transculturality (one's ability to rearrange its sense of identity depending on one or more specific cultures), etc. Furthermore, using semi-structured in-depth interviews of Spaniards in France, Oso's (2020) study on highly skilled workers demonstrates the isolation of the recent wave of highly skilled migrants from the historical migratory networks (from the '60s and '70s). Moreover, the results of her study demonstrate how class differences generate obstacles in achieving the desired career paths.

In the literature, there are also several studies addressing the effects of the institutional framework and/or policies on gender inequality (Gutiérrez-Rodríguez, 2016). For instance, Iredale's (2005) article presents the gendered experiences of migration for skilled migrants by examining four types of factors: the access to training and the policies in the origin country; the occupational entry policies of the receiving countries and, finally, the accreditation of qualifications and skills in receiving countries. The results of Iredale's study demonstrates the existence of gender biases in

pre-migration assessment and selection policies (for example, the focus on the skills of the principal applicant, who in most cases is a man). Moreover, she finds gender biases in employment (for instance, highly restrictive conditions of entry into a specific profession; excluding women at the interview stage because of 'inadequate experience', disrupted career paths, employer's concerns about the possibility of pregnancy, etc.). Besides, Andall's (2013) paper demonstrates how policy frameworks intersect with employment sectors and how these create gendered migration outcomes. It is argued that the contemporary immigration policies in Europe are characterized by policy convergence around potential pathways to settlement for skilled migrants and temporariness for unskilled or low-skilled migrants.

Even though there is a predominance of qualitative methodologies in studies about migration and gender, some are employing quantitative ones. For instance, Docquier et al. (2009) quantified and characterized the gender composition of international migration by educational attainment, providing new data on stocks and emigration rates. Their study demonstrated that women's share in the highly skilled immigrant population increased across almost all OECD destination countries between 1990 and 2000. Also, their results indicated that the growth rates of highly skilled women emigrants exceeded the growth rates for low-skilled women or highly skilled men, an evolution that is particularly pronounced in the least developed countries. It was shown that, on average, highly skilled women's emigration rate was 17 percent above men's during that period, a fact determined by the rapid women's rise in schooling level and by the increased demand for women's labor in health care sectors.

Using the database provided by Docquier et al. (2009), Baudassé and Bazillier (2014) tested two possible theoretical explanations for the link between gender equality and migration: the first one is the hypothesis of a push factor resulting in a negative correlation between gender equality and women migration. The second one is the selection process hypothesis in which an improvement of gender equality reduces the bias in the selection process. Their results support the latter hypothesis, finding a positive correlation between highly skilled women migration and gender equality and a negative one between low skilled men migration and gender equality. Another significant finding of their study is that a reduction in gender biases increases the general skill level of migrants.

Moreover, very few studies evaluate the structure and agency that highly skilled women have in their migration process. One of these examples is Riaño and Baghadi's (2007) paper which studies the labor market participation of skilled immigrant women from countries outside the EU into Switzerland. More specifically, their study shows how these women use their imported social and cultural capital to gain access to upper segments of the Swiss labor market. The results indicated that, despite having good educational qualifications and professional experience before migration, only a small proportion of these women were able to find jobs corresponding to their skill level. Their study has at least two noteworthy implications: firstly, it demonstrates that class, gender, and ethnicity (a trio with presumed negative roles on migrants' labor life) may have negative or positive consequences depending on the social context and the immigrants' employment objectives. Secondly, it addresses the importance of analyzing both the structure and the agency of these women who, in most cases, are very active in mobilizing resources to gain access or improve their labor status.

In the past decade, studies on gender discrimination in academia have received particular attention. Many of these studies focus on women underrepresentation in science, technology, engineering, and mathematics (Casad et al., 2021) or are concerned with the underrepresentation and the obstacles that women face in achieving an academic rank (Blithe, 2020; Filandri & Pasqua, 2019; Heijstra et al., 2015; Santos & Dang Van Phu, 2019) and gender wage gap (Chen & Crown, 2019). Gendered inequalities in academia have also been studied from the perspective of students' perceptions; as in Columban et al.'(2020) study about students' opinions on gender issues in the Romanian academic environment or Stratton et al.' (2005) research on the role of gender

discrimination in medical students' choice of specialty and residency program enrolled in US medical schools.

A peculiar theme of gender discrimination in academia is represented by the experiences of highly skilled women migrants, a theme that received even less attention than the above-mentioned issues. The studies that addressed this theme focused on the social processes that affect highly skilled immigrant women (Toren, 1999), the drivers of highly skilled Iranian women migrants in developed countries (Nazari & Seyedan, 2016), or when examining multiple discrimination through discursive analysis at institutional, academic and population levels (Valles Martinez et al., 2017).

2-3 Conceptual framework and methodology

The two directions that can be drawn from gender and migration (by which gender differences explain migration and, the reverse, how migration influences gender) are better understood by underlining the relevance of different analytical levels, taking into account not only the structural factors from the origin and/or destination countries but also the individual responses to these changes. Thus, this relationship can be analyzed from a multilevel perspective consisting of a micro-level (individual socio-psychological processes), a meso one (migrant networks), and a macro level (socio-economic, political, and cultural factors in the origin and the destination country). Given that it uses a type of multilayered frame of reference, the present research revolves around the conceptual framework developed by Mahieu et al. (2015), which encompasses four analytical themes:

- The first theme refers to gendered macro-structural factors that influence migration patterns. Mahieu et al. (2015) identified eight types of structural factors, such as structural gender discrimination, changing ideologies in the sending and the destination regions, migration networks, macroeconomic evolutions, political factors and migration policy in sending and receiving countries, demographic factors, global information and communication technology, and historical factors.
- The gendered agency is the second theme, and it comprises factors at the micro and meso levels. This analytical theme refers to the coping mechanisms that women use as a response to the opportunities and the constraints of the migration process, acknowledging their active role during this process and, at the same time, their specific vulnerabilities.
- The third analytical theme consists of changes in gender relations before and after migration. This theme focuses especially on specific events that caused significant shifts in identities on several life domains: labor market, family, and public participation in both the origin country and the destination one. Thus, it studies factors at the micro and meso level, considering broader external factors of self-identification, such as stereotypes.
- The last analytical theme concentrates on the migration career in the destination country, studying migrants' evolving conditions (how their pre-migration expectations and objectives interacted with the post-migration opportunities and constraints) and the shifts in their perceptions of belonging and home.

The proposed research method is a semi-structured questionnaire (Appendix C) with a life course approach, where aspects of personal and professional life (especially focused on gender relations, perceived transitions, and life events) are evaluated after migration to Brussels. Following the analytical themes mentioned above, the questionnaire has three parts (the third and the fourth part were integrated into a single section) and it was applied to academics from *The Institute for European Studies* and *Group for Research on Ethnic Relations, Migration, and Equality* (GERME) of *The University Libre de Bruxelles.* Given that the first analytical theme covers a broad area of macro factors, the first part of the questionnaire focuses only on the reasons for migrating and on the interviewees' perceptions on the changing social ideologies in the sending countries and in Belgium. The second part of the questionnaire aims at the vulnerabilities that women were faced

with along the migration process and the coping strategies they used as responses to the constraints of the migration process. The last part centers on the perceptions of gender-based discrimination in the working environment and addresses issues related to the changes in the feelings of home and belonging. Whereas initially, we intended to apply the questionnaire only to women from academia, after reconsidering the premises of unfair treatment, we decided to apply it to both genders.

The choice of applying these interviews to the Belgium case comes from various reasons that, over time, have raised the awareness and may have diminished gender biases at least in the research and policy fields. Firstly, thanks to its efficient migration policy, Belgium and especially Brussels, attracts a significant number of highly skilled workers. For instance, the results of a 2013-2014 comparative immigration study realized by Deloitte (2013) indicated that, along with the Scandinavian countries, Belgium is in the leading group of nations pursuing an efficient and accessible policy, due to its speed, low cost, and accessible conditions for obtaining a work permit. Besides, from 2019, significant measures in immigration procedure were undertaken, such as the implementation of a single procedure to apply for a Single Permit (which previously supposed double permission: obtaining a work permit B and, afterward, applying for a separate visa or a residence permit). Another measure was the abolishment of work permit C (which was previously granted to persons who had a right to reside in Belgium for reasons other than work) and, from 2019, all the persons fitting this category have the permission to work under certain conditions (Maes, 2019).

The second reason stands in the internationalization of higher education as reflected in the mobility of students, researchers, and teachers. Regarding the mobility of students, more than half come from EU countries and constitute the second-largest category after family migration. Moreover, according to a study from 2014, Brussels is considered the main student city from Belgium followed by Ghent, Leuven, and Antwerp (Vaesen & Wayens, 2014).

A third reason derives from the significant number of legal and policy advancements in promoting gender equality in academia and research undertaken by Belgian academic institutions, associations, etc. According to the European Institute for Gender Equality (2020), the legislations of Flemish and French communities of Belgium issued in 2012 various decrees aimed at improving gender equality in research institutions. For instance, one of the performance indicators used to calculate the funding amount per university is a diversity parameter that looks at the number of female researchers at the postdoctoral and permanent levels**.** Moreover, the legislation prescribed that university boards, research councils, and selection juries must be gender-balanced. Apart from the legal instruments, there were also other stimulatory initiatives, such as the project “Gender contact person” financed by Wallonia-Brussels Federation, fellowships for women to participate in scientific research platforms (as SASSY - Sharing Academic Sexism Stories with You). Moreover, the research organizations are very active; all five Flemish Universities have set up Gender Action Plans and, in the French-speaking community, all universities have appointed a gender contact person in charge of gender matters within their university.

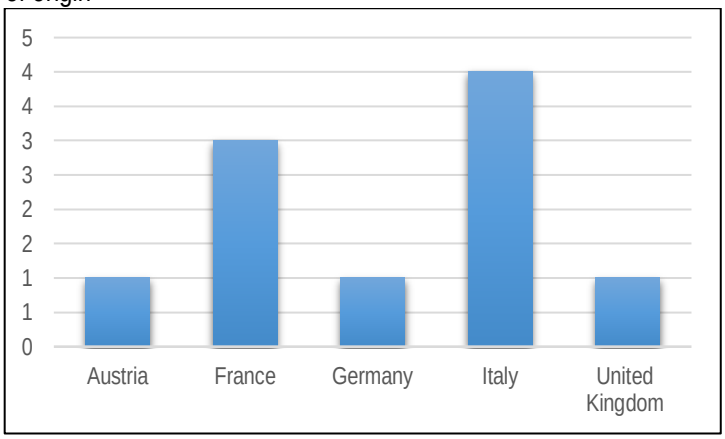
2-4 Results and discussion

The semi-structured questionnaire was disseminated among the IEE affiliates (academics, researchers, scientific collaborators & visiting researchers) and the GERME group. Ten persons responded to the questionnaire, seven women and three men, four of them coming from Italy, three from France, one from Germany, one from Austria, and one from the United Kingdom (Figure V.2). Four respondents have less than 30 years and six of them have between 30 and 39 years old.

Out of ten, six have lived in Belgium more than five years, two between four and five years and two between one and three years (Figure V.3). Regarding their academic position (Figure V.4), half of the respondents are Ph.D. graduates (ISCED 8), one is an assistant professor and four are graduates (ISCED 6-7). When asked about the average number of hours worked per week, nine

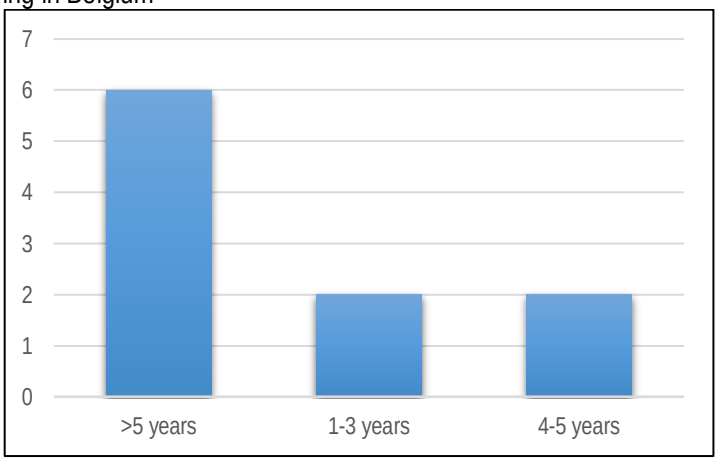
respondents reported working around 30-49 hours and only one reported working around 50-69 hours per week. Regarding their marital status and the number of children, most of them are single (seven) and three are married. Out of the three married persons, one has two children and two have one.

Figure V.2 Country of origin



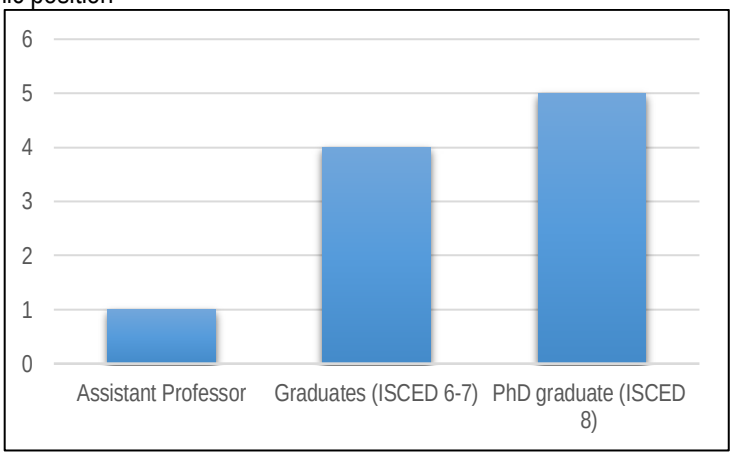
Source: Own representation

Figure V.3 Years living in Belgium



Source: Own representation

Figure V.4 Academic position



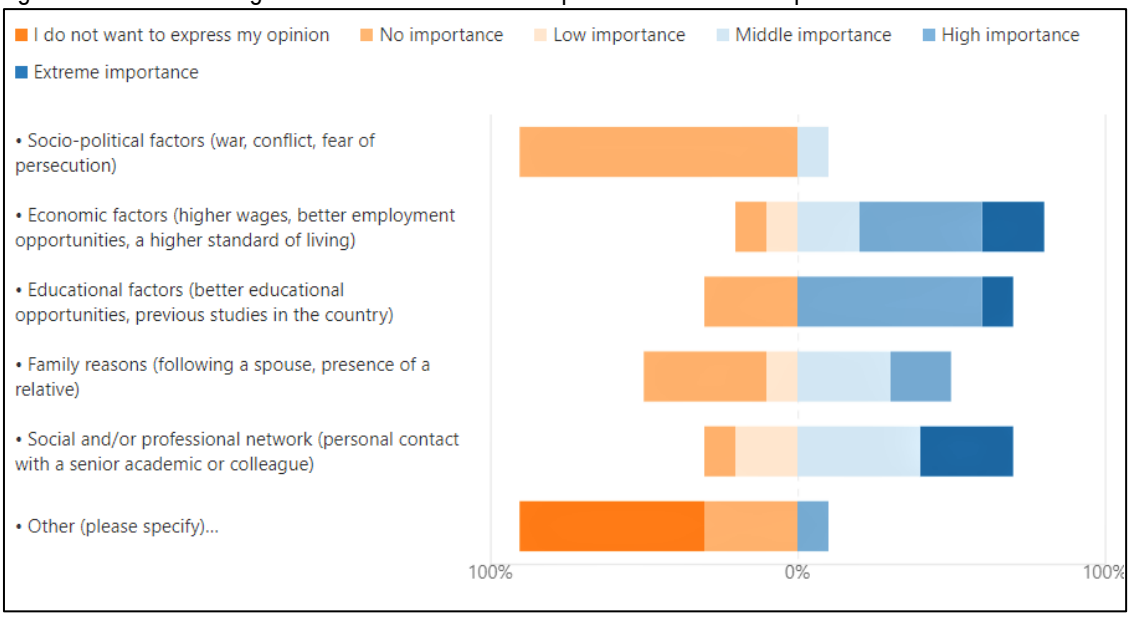
Source: Own representation

Macro-structural factors

The first part of the questionnaire addressed macro-structural factors related to the drivers of migration, the socio-economic models in the origin country and Belgium, and the existence of a

prior migration network in Belgium. Figure V.5 lists the importance of the drivers of migration of the ten respondents. The list consisted of scaling five types of drivers: socio-political factors, economic factors, educational factors, family reasons, social and/or professional network. The drivers with extreme importance in making migration decisions were social and/or professional network (personal contact with a senior academic or colleague), economic factors (higher wage, better important opportunities, a higher standard of living), and educational factors (better educational opportunities and previous studies in the country). The drivers with high importance were educational ones, economic and family reasons (following a spouse, presence of a relative).

Figure V.5 Drivers of migration listed from the less important to the most important.



Source: Microsoft Forms

The next question asked respondents to indicate if several socio-economic models apply to their origin countries and Belgium. They were asked to indicate if a 'male breadwinner model' (the idea of a family in which men earn a family wage and provide while wives do domestic labor and care for family members) predominated in their origin country before migrating (five disagreed and four agreed). Another question indicated if their origin country was characterized by a patriarchal social system, where four disagreed, and five agreed. Besides, when inquired if the opposite model, the dual-earner model (a social and economic arrangement in which men and women engage symmetrically in both paid work in the labor market and unpaid work in the home) applies to Belgium, half agreed, three said that they do not know and two disagreed. When asked if Belgium was characterized by a patriarchal social system, half disagreed, two agreed and three said that they did not know. Given that country differences in social systems may accelerate the migration decision, the rationale of this question was to identify if one of these social models generally characterizes the origin countries/ Belgium. The results are mixed, indicating no clear association of these social systems neither to the origin nor to the destination country.

The last question of the first part asked if they have any migration network in Belgium before migration. Out of ten, six said they had a network before migration, and four said that they did not have one. This question emphasized the importance of having networks in the destination country and their role in making a migration decision again.

Gendered agency

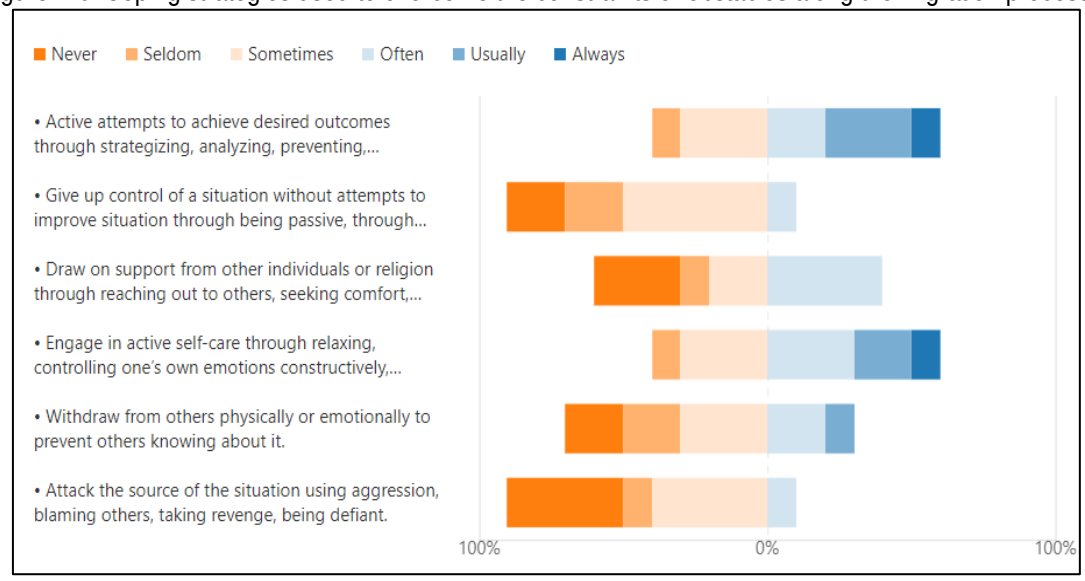
The second part of the questionnaire was centered on the gendered agency. More specifically, three questions were analyzing the type of opportunities migrants met, the constraints, and the coping strategies used to overcome the constraints/obstacles along the migration process.

The most frequent types of opportunities migrants mentioned were job-related and educational opportunities, especially in terms of salaries and post-doctoral fellowships. Other opportunities were related to the advantages of being in a multilingual country and the possibility of acquiring new linguistic skills, high chances to integrate and participate in international research/professional networks, having new cultural and social experiences. One migrant, in particular, emphasized the existence of "good job opportunities on managerial position despite being pregnant/having kids".

The second question within this part assessed the perception of the types of constraints that migrants working in academia faced. One of the most encountered difficulties was the one related to finding employment while completing the Ph.D., one of them arguing that there are few offers of permanent contracts for foreigners. Other types of pressures were related to the difficulty to integrate with the locals, linguistic restraints, and bureaucratic formalities. One migrant pointed out discriminatory attitudes toward French and Flemish people, saying that:

> *"I am French, and, sometimes, Belgian people have unhinged racism towards French people. Stuff that you would not dare say against Arab people is perfectly acceptable here when they target French people. That is also true about remarks about Flemish people, which often shocked me more than I would have expected".*

Figure V.6 Coping strategies used to overcome the constraints or obstacles along the migration process.



Source: Microsoft Forms

The last question analyzed the coping mechanisms used to overcome the constraints or obstacles along the migration process (Figure V.6). On a scale from never to always, migrants were asked to rate six families of coping strategies. The strategies that migrants working in academia adopt with a high frequency are active attempts to achieve desired outcomes (through strategizing, analyzing, preventing, negotiation) and engaging in active self-care (through relaxing, controlling one's own emotions constructively, encouraging oneself). The next two most used strategies were drawing on support from other individuals or religions (through reaching out to others, seeking comfort, praying), and withdrawing from others physically or emotionally to prevent others from knowing about it. The least used strategies were attacking the source of the situation (using aggression, blaming others, taking revenge, being defiant), and giving up control of a situation without attempts to improve it (through being passive, negative thinking, self-blame, distraction).

Changes in gender relations throughout the academic career in Brussels

The last part of the questionnaire was the most lengthy and was centered on the changes in gender relations throughout the academic career in Brussels. This part addressed questions

related to the shifts in migrants' identities, the years of experience in academia before migration, the frequency of experiencing gender-based discriminatory situations in performing academic-related activities, and the changes in the perceptions of home and belonging.

The questions addressing the shifts in migrants' identities were: *During the whole migration period, certain events determine significant shifts in migrants' identities. Did such an event happen to you? Did this event affect your identity in (academic life, family life, public participation, etc.)? Can you please give an example of such an event that caused a significant shift in your identity and how this affected a specific life domain?* Overall, seven of the respondents said that they experienced events that affected their identity in academia (three), family life (three), and public participation (one). When asked to give examples of such events, one of them stated that he/she experienced academic exclusion and mobbing as a result of being a foreigner not affiliated to a Belgian ideological identity and another one identified such an event being Brexit and its impact on work and study opportunities on its family members. On the other hand, there were also events with positive consequences on their identities, such as the role of socialization with Belgians, which determined "a more open mind and a more critical mind of my country".

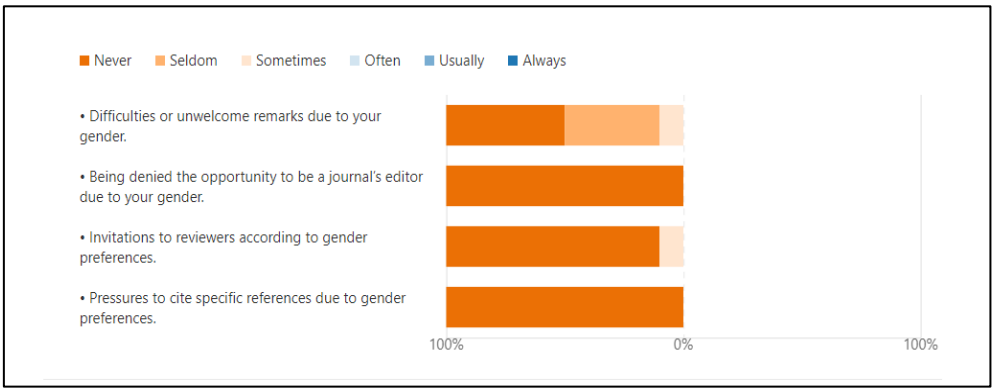
We encountered an example of gender-based discrimination in academia where white men feel discriminated against by women. The below confession relates how others develop perceptions based on appearance (clothing and accent) and how ones' struggles and problems are disregarded when categorized as a privileged white man. This confession may also be regarded as an example of intersectionality where aspects of a person's social and political identities (in this case gender and race) combine to create different ways of discrimination and privilege.

> *"I have had my clothing style and speaking accents described as «French». I am also studying social sciences where most people are left-wing, while I dress relatively conservatively, so I have had my clothing style also depicted as «French catholic». Since then, I paid less attention to how I dress, because anyway this gets disregarded as French and conservative. Being less «sophisticated» helped me fit in. I have also often had people hinting that I was being a privileged white male, and that is why I was there. All while not paying attention to the fact that I also have my share of struggles. For example, I have really bad hearing, which most people don't adapt to since it's an invisible disability. Also, I've been often depressed as a Ph.D. student. I did not like working alone most of the time. So even I am far from facing the same difficulties as a Muslim black women refugee, it has sometimes is a bit annoying to be reduced to my male privilege, especially since I was hierarchically in a lower position when I heard that remark. I have had my Ph.D. supervisor (female) or female colleagues with tenure who said that. Yet they are more or less in the same position, all things equal (well-off families, white, European, command the «good» languages like European ones). Simply because they are being women does not mean that there is an entire world of difference between us. Sure, there is a gap between me and a Muslim black woman refugee, but not that much between me and them. In the end, these types of comments feel just as wrong as disregarding me as «French»".*

The following questions aimed at finding out if there were persons unable to gain an academic position based on the original qualifications and how many years of experience in academia they had before migrating to Belgium. The majority of them (eight) had less than two years of experience in academia, while only two had between 3-5 years of experience. Also, it was interesting to observe that four respondents said that they were unable to gain an academic position based on their original qualifications.

The following four questions asked the respondents to rank on a scale from never to always the occurrence of gender-based discriminatory behaviors in specific activities of academic life. For instance, when asked, “How often did you experience the following situations during the process of publishing your academic papers, books, etc.?” (Figure V.7) some of the respondents indicated that they sometimes encountered difficulties or unwelcomed remarks due to their gender and received invitations to reviewers according to gender preferences.

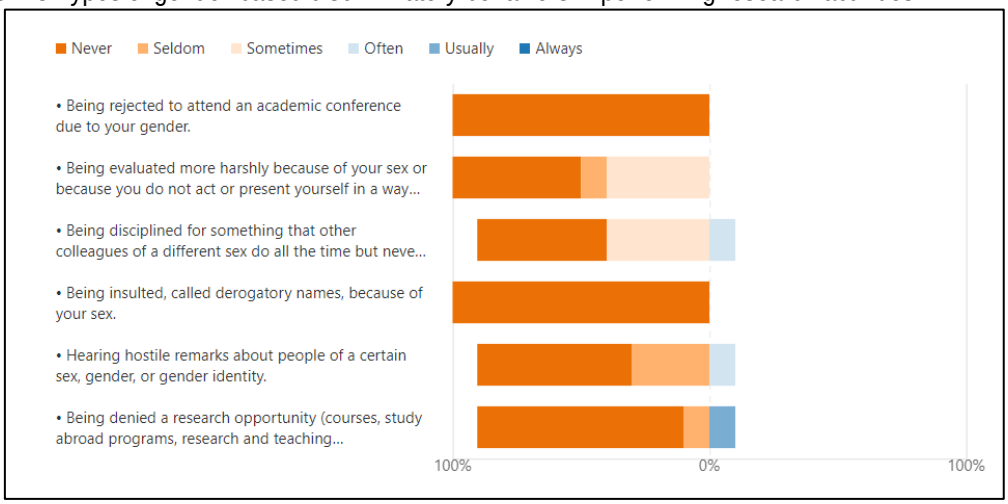
Figure V.7 Examples of gender-based situations during the process of publishing academic papers, books, etc.



Source: Microsoft Forms

The next question asked respondents to indicate how often they encountered different types of discriminatory behavior in performing research activities (Figure V.8). All of them reported that they have never experienced two situations: being rejected to attend an academic conference due to their gender and being insulted, called derogatory names because of their sex. On the other hand, when asked how many times they were evaluated more harshly because of their sex or because they do not act or present themselves in a way that conforms to traditional ideas of femininity or masculinity, five indicated never, one indicated seldom and four sometimes.

Figure V.8 Types of gender-based discriminatory behaviors in performing research activities.



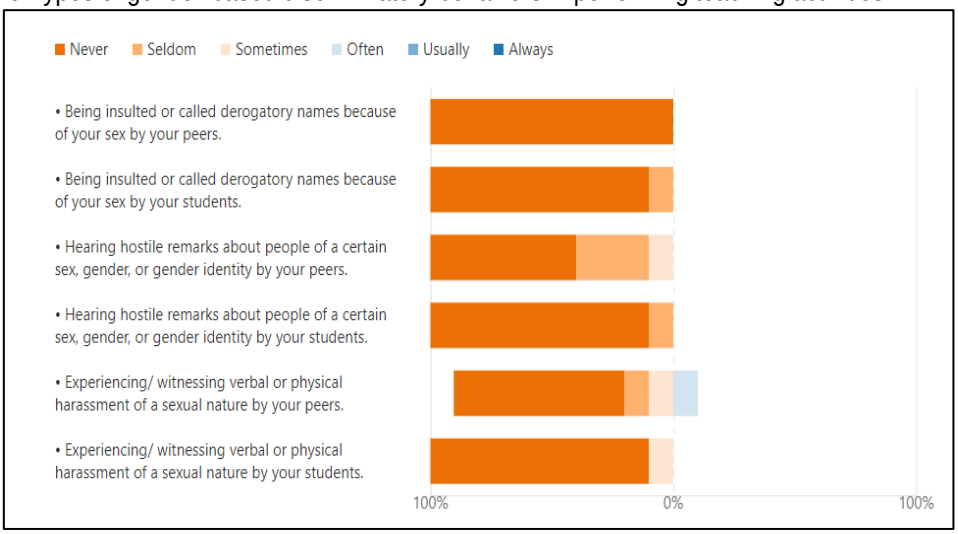
Source: Microsoft Forms

The same proportions, but in different degrees were discovered when asked to rate how many times they were disciplined for something that other colleagues of different sex did all the time but were never punished for. More specifically, five indicated that they never experienced this situation, while four indicated sometimes and one often. The last two situations had a lower frequency, “hearing hostile remarks about people of a certain sex, gender, or gender identity” (six answered never, three seldom and one often) and “being denied a research opportunity (courses, study abroad programs, research, and teaching assistantships) that is given to people of another

sex who are equally or less qualified or eligible as you" (eight said never, one said seldom and one usually).

The next question addressed the frequency of discriminatory behavior in performing teaching activities (Figure V.9). As it can be seen, the majority of these types of discriminatory behavior in performing teaching activities are rare. Nevertheless, the most frequent ones are "having heard hostile remarks about people of a certain sex, gender, or gender identity by their peers" and "experiencing/ witnessing verbal or physical harassment of a sexual nature by their peers".

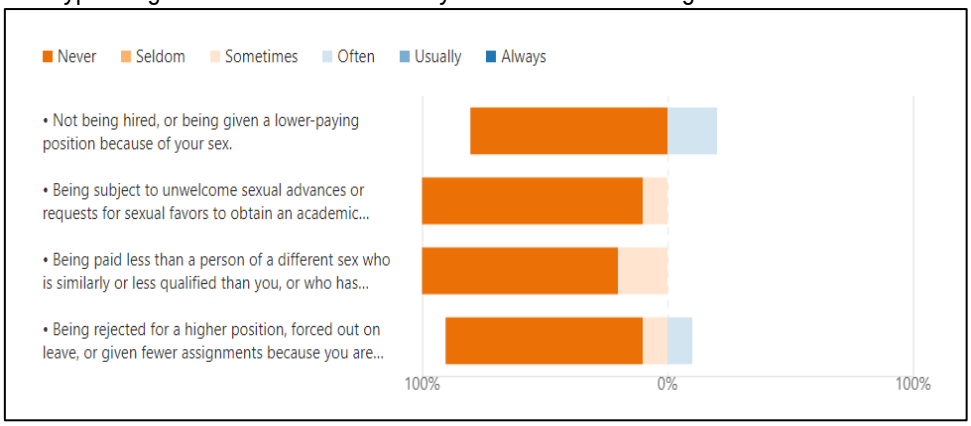
Figure V.9 Types of gender-based discriminatory behaviors in performing teaching activities.



Source: Microsoft Forms

The last question assessing gender-based discrimination in performing academic-related activities was focused on discriminatory behaviors in climbing the academic ladder. The least encountered situation was "being subject to unwelcome sexual advances or requests for sexual favors to obtain an academic position" for which only one respondent indicated that sometimes he experienced such situation. On the other hand, two persons indicated that often have experienced the first situation: not being hired or being given a lower-paying position because of their sex. Moreover, when asked about the situations in which they were rejected for a higher position, forced out on leave, or given fewer assignments due to pregnancy/having children, one respondent said that often encountered this situation and one said that only sometimes.

Figure V.10 Types of gender-based discriminatory behaviors in achieving an academic rank.



Source: Microsoft Forms

The last questions within this part addressed the changes in the perceptions of home and belonging. Before asking about the changes in perceptions, they were asked if their pre-migration academic expectations and objectives met with the post-migration reality, where the answers were equally divided, five saying yes and five no, indicating that the degree of satisfaction with the new destination country is relative, being influenced by various personal and professional factors. Moreover, when asked if they have noticed a change in their perception of belonging/home, nine said yes, a fact that confirmed the results of the other studies. Besides, when asked to define this change, the responses revealed the complexity and difficulty of providing a definition. For instance, one argued in favor of multiple belongings, another one argued in favor of the belonging represented by the origin country, for another one the sense of belonging was associated with Brussels. Besides, we encountered cases of de-belonging and transculturality, as indicated in the below relates:

> *"When I first came to Belgium for my studies, it was not my plan to stay there in the long term and therefore did not feel a deep sense of belonging to Belgium. "Home" still was my country of origin. By the end of my studies, I did feel more attached to Belgium and decided to stay. I do consider it now as home, even though not the way I did with my home country. I feel now neither completely belonging to my country of origin, nor Belgium".*

> *"I never felt home in Brussels; this was mainly because of the language barrier, but also because Brussels is a city and I was always homesick towards the countryside and mountains; but I the longer I stood, the better I accommodated myself mainly through finding people with home I could share my free time and finding a girlfriend".*

Lastly, they were asked if they believe that the Belgian policymakers are taking enough measures to reduce the gender disparities in academia, where four said no and six said that they do not know. Given that neither of them said that the measures taken by policymakers are enough, this indicates that gender disparities exist in academia, that the level of awareness of this matter should be raised and that even more measures should be implemented.

2-5 Remarks

This preliminary study constitutes an important contribution to a gender-sensitive approach of highly skilled migration for at least two reasons. Firstly, since in the literature there are few studies concerned with the experiences of highly skilled migrants in academia, this research fills this gap, by providing an understanding of the drivers and consequences of highly skilled migration in the destination country through a gender-based approach. Secondly, this research provides original data on how often highly skilled migrants from academia perceive gender discrepancies.

The semi-structured questionnaire applied in this research was based on the conceptual framework developed by Mahieu et al. (2015) and contained three parts: the first part focuses on the reasons for migrating and on the interviewees' perceptions on the changing social ideologies in the sending and the destination regions. The second part of the questionnaire addressed the type of vulnerabilities that highly skilled migrants in academia were faced with along the migration process and the coping strategies they used as responses to these constraints. The last part of the questionnaire centers on the perceptions of gender-based discrimination in the working environment and addresses issues related to the changes in the feelings of home and belonging.

The results indicated that, for highly skilled migrants in academia, the most critical factors for migration are social and/or professional networks, economic factors, and educational factors. In addition, as indicated by previous studies, it was emphasized the influence of having networks in

the destination country and their role in making a migration decision again. Moreover, when looking at the gendered agency, the most encountered difficulty was the one related to finding employment while completing the Ph.D., few permanent contracts for foreigners, difficulty to integrate with the locals, linguistic restraints, and discriminatory attitudes toward French and Flemish people. When analyzing the coping mechanisms used to overcome the constraints or obstacles along the migration process, it was interesting to observe that the most used strategies were active attempts to achieve desired outcomes and engaging in active self-care. The last part of the questionnaire, about the changes in gender relations throughout the academic career in Brussels, revealed that migrants working in academia had experienced at least one event that determined significant shifts in their identities. In this regard, we encountered cases of academic exclusion and mobbing, and cases of gender-based discrimination where white men feel discriminated by women. Moreover, the results suggest that highly skilled migrants working in academia experienced/have witnessed gender-based discrimination, especially when performing research activities and in achieving academic ranks. Lastly, the changes in the perceptions of home and belonging revealed similar results to the ones envisaged by previous studies, such as multiple belonging, the feeling of belonging associated with the origin country/with Brussels, de-belonging, and transculturality.

The research from this chapter is limited in extrapolating its results due to its limited number of respondents. Therefore, it cannot be said that the results are similar among the Belgian academic system as a whole. In this regard, an extended version of this research is to apply this questionnaire to academics from other Belgian cities and even to academia from other countries. Nevertheless, this research's relevant implication is that gender disparities continue to exist even in a knowledgeable and high-level educational institution, where the level of awareness on these issues is supposed to be high. Keeping this in mind, this research stands as a testimony for policymakers to take more action to pursue gender equality.

3. Recommendations

As the evidence from the above studies suggests, migration reduces poverty but its mechanisms are loose and often inappropriate. Therefore, the classical recommendations such as reducing pre-departure, recruitment, and travel cost of migration; improving access to loans; lowering the transaction costs of migrant remittances; increasing and diversifying safe, regular, and orderly migration pathways have to be reconsidered to include more subtle and thorough mechanisms. These new mechanisms may be based on cultural aspects and the following paragraphs will prove their important impact on migration decisions. Including and strengthening these latter factors will result in more complete migration mechanisms of reducing poverty.

Through the lens of the second chapter and reconsidering the model presented in the beginning, development strategies must include migration as an equilibrium mechanism and as a form of development per se. Alongside all 17 SDG, from gender equality to peaceful societies, links between migration and development are present. Results of various analyses on the links between migration and Sustainable Development Goals confirm that migration is a powerful poverty reduction tool, which can contribute to the achievement of SDGs.

Development policies should be rested on the fundamental understanding that migration creates development and it is more successful if its design maximizes its benefits to everyone affected. In accomplishing the UN Sustainable Development Goals, an important question that countries have to answer is how they can build proper policies to regulate migration. Unfortunately, at the international level, there are very few institutions and policies to tackle the problem of mobility. Two of these exceptional examples are:

- The Global Compact for Migration, which is the first inter-governmentally negotiated agreement covering all aspects of international migration in a holistic manner. GCM is a non-binding agreement that respects states' sovereign right to determine who enters and stays in their territory and demonstrates a commitment

to international cooperation on migration. In this way, GCM is framed in target 10.7 of the 2030 Agenda in which Member States committed to cooperate internationally to facilitate safe, orderly, and regular migration (IOM, 2017).

- The Global Skill Partnership which was launched as an initiative of several international organizations (ILO, IOM, UNESCO, IOE, and ITUC) to develop and recognize the skills of migrant workers, with a particular focus on youth and women. Turning skill migration from a threat to an opportunity, the GSP is an agreement between employers and governments in destination countries and professional training centers in origin countries (ILO, 2018).

Migration can help in achieving the targets within Goal 1: *End poverty in all its forms everywhere* in several ways. The measures mentioned above represent important steps in achieving target 1.b from Goal 1: "Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions"(United Nations, n.d.). These types of innovative mechanisms maximize the mutual benefits of migration for both countries of origin and destination: by ensuring that destination countries get migrants with the exact level of skills they need and by strengthening the human capital with finance and technology in the origin countries.

Regarding target 1.4 about the equality of rights to economic resources and access to basic services, migration's contribution is twofold. Firstly, migration has direct effects in the origin countries by helping their families to improve their wellbeing through increased income and consumption, and secondly, it has indirect effects, including higher savings, higher investments in assets (including land ownership), and increased access to education and healthcare. Furthermore, in achieving target 1.5 regarding the resilience of the poor and vulnerable, migration strengthens households' resilience by enhancing their ability to cope with economic shocks through informal insurance strategies (the main method being sending remittances).

Besides, the literature review on cultural sustainability reveals that culture can be integrated into sustainable development in three main ways. The first role is characterized as *culture in sustainable development* and it expands the conventional sustainable development discourse based only on three pillars: economic, social, and ecological, by adding the fourth pillar: the one for cultural considerations. In this case, the cultural pillar stands autonomously alongside the other three pillars. The second role, *culture for sustainable development*, expands the primary role of culture into being the mediator between the three pillars. Within this perspective, culture balances the conflicting demands between economic, social, and ecological issues and guides sustainable development by communication. Within the last role, *culture as sustainable development*, culture is defined as a necessary foundation for achieving the aims of sustainable development. This third role provides a new paradigm to sustainable development by recognizing that culture stands at the root of all human decisions and actions. Through this paradigm, culture and sustainable development are intertwined and the division between the three classical pillars: economic, social, and ecological, begins to fade.

The last perspective, *culture as sustainable development*, provides the basis for creating proper development strategies to reduce poverty, inequality and to create growth (Dessein et al., 2015). Accepting this new paradigm has several important implications in creating proper policies to regulate migration. In this way, the classical development strategies based on distributional changes and income equality are challenged by the prospects of cultural fulfillment. In this way, there is a need to reshape policies dealing with social life and participation to achieve the fundamental aim of creating strong bridges between communities. Therefore, in addition to innovative measures of regulating migration as the ones mentioned above, there is also a need to reforming other types of measures, such as citizenship. EU studies demonstrated that citizenship acquisition increased political participation, especially for migrants who grow up in non-democratic regions (Just & Anderson, 2012). For this reason, several measures have to be implemented:

- Eliminate ethnic or religious criteria from the requirements of obtaining permanent residency and citizenship to all long-term migrants;
- Offer automatic access to permanent residency and citizenship to second-generation migrants;
- Allow and facilitate the holding of multiple citizenships.

Complementary reduction poverty tools focus on the provision of social protection programs. Granting migrants access to social protection systems ensures well-being and prevents vulnerabilities throughout a migrant's life. Also, it has important implications on the destination countries by expanding the base for potential contributors, increasing the ability of the states to govern migration more effectively, and bringing migrant workers into the formal economy. The above-mentioned measures constitute important steps in achieving target 1.4 from Goal 1: "By 2030 ensure that all men and women, particularly the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership, and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services including microfinance"(United Nations, n.d.). To increase the equality of rights, culture plays a crucial role in at least three ways:

- By exploring the potential of cultural symbolism, cultural goods, and heritage to create an inclusive and sustainable economic development;
- By securing that local and national economic strategies engage local communities, recognize cultural goods, and are adapted to specific cultural contexts;
- By guaranteeing equal access for migrants and non-migrants to social and cultural services.

Moreover, the results from section two on the gender experiences of highly skilled migrants pointed out the importance of taking more measures of gender equality to pursue Goal 5, especially in achieving target 5.1 "End discrimination against women and girls", target 5.5 "Ensure full participation in leadership and decision-making" and target 5.C "Adopt and strengthen policies and enforceable legislation for gender equality". Although the results have low explicative power, it constitutes a signal that gender disparities continue to exist even in academia. Whereas the measures mentioned in the previous subchapter about the legal and policy advancements in promoting gender equality in the Belgian academic system support the idea that significant steps have been taken to achieve gender equality, there is still a need to take more thorough actions. Even though from the '70s until 2018 we witnessed startling progress toward gender equality, in the last years this progress has stalled. Moreover, the measures undertaken to end discrimination against women and girls have discriminatory effects against men. In this regard, further progress calls for substantial institutional and cultural change, that should focus on measures that increase the men's participation in household and care work, on governmental provisions of child care, and on policies that help both women and men combine work with family care responsibilities.

To reiterate, two of the main prerequisites of sustainable development are reducing poverty and decreasing inequalities among people. To achieve this objective, an imperative requirement is to guarantee economic and social rights to every person, creating the afforded conditions under which they can meet their needs. In this regard, culture and migration are two powerful poverty-reduction instruments and are key to meeting SDG goals. As the literature suggests, the self-selection of migrants to more similar cultural destination countries boosts returns to human capital and improves integration. Secondly, large communities with the same language and culture in destination countries encourage mobility. Thirdly, acquiring skills in the language of the destination region is a human capital investment, which provides an additional advantage not only to migrants, but also for the whole society, and lastly, historical ties lower migration costs and boost development. The measures mentioned in this chapter, including intergovernmental agreements, skills partnerships, measures to ease citizenship acquisition, and measures to end discrimination are important steps to transform migration into one of the most successful ways to reduce poverty.

The key to implementing these measures effectively stands in a new paradigm of creating development strategies, the one that considers culture and migration as intertwined with sustainable development.

Conclusions

As stated in the introduction, migrant and refugee crises are built upon economic, social, cultural, humanitarian, etc. disparities between origin and destination countries. Depending on how efficient they are managed, these crises can deepen or soften the problems in origin and the destination countries. The thesis explores possible answers to two questions, "*Why did these crises appear?"* and "*How can they be skillfully handled to not undermine in any way neither the origin nor the destination area?"* and is focused on understanding the migration drivers and on possible ways to manage migration crisis efficiently. The thesis revolves around the hypothesis that migration decisions are a synthesis of economic, social, cultural, and technological factors that change continuously and have an impact on both the origin and the destination regions. Moreover, the thesis's premise is that migration and culture are key instruments in developing sustainable development strategies. Each chapter addressed each of the objectives presented in the introduction.

The first theoretical objective aimed at describing how the field of the economics of migration evolved and what its characteristics are. This objective constituted the aim of the first chapter, which started from the assumption that the field of the economics of migration registered an ascending trend over time. A secondary objective was to see how much the socio-cultural factors are represented in the subfield of the economics of migration.

Chapter I offers a consistent picture of the structure of the interrelated fields of "economics" and "migration" consisting of three parts. The first part was centered on the evolution of the number of publications on the topics of "economics" and "migration" before and after the 2007-2008 crisis and an analysis of their top languages in three databases: Web of Science, Scopus, and EconLit. The results indicate a notable increase of publications on the topics of "migration", "economics" and "culture" after the 2007-2008 crisis, mainly in Web of Science and Scopus databases. A particular interest was on the number of publications on the topic "culture and economics" and on "culture and migration" which have more than doubled in all three databases after the crisis in comparison with the previous period. Regarding the top languages of publications on these topics, the results demonstrate that English is the predominant language in all topics. Furthermore, French and Spanish are the following top languages with variations among databases and topics.

The second part included two citation analyses on two topics: the first one on "national culture and migration" and the second one on "economics and migration" using citation reports from the Web of Science database for the timespan 1990-2021. The citation analyses were centered on the total number of publications, the h-index, the average citations per item, the sums of times cited, and the number of the citing articles. The results confirm the ascending trend of the number of publications on the topic of the economics of migration. The analysis of the citing articles of the publications on this topic shows that the top research areas are environmental sciences, business economics, geography, and sociology and that they originate from the USA, UK, China, Australia, and Germany.

The third part consisted of four analyses of bibliometric networks on 1.188 publications on the topic related to "economics" and "migration" exported from Web of Science Core Collection for the period 1958-2021 using VOSviewer software. The bibliometric coupling network of researchers identified six clusters of researchers, the biggest cluster having 14 researchers, among whom are the following: Demurger Silvie, Dustmann Christian, Falco Chiara, Stark O., Hatton Timothy, etc. The second analysis was a co-citation network of journals, and it shows that the journals with the higher number of citations are "American Economic Review", "Journal of Political Economy", "International Migration Review", "Journal of Development Economics" and "World Development". Furthermore, the journals were grouped in six clusters, in which two broad groups of journals can be distinguished, one group containing journals that publish mainly migration and labor research and, another one containing journals that publish economic and development research. The third

analysis was a co-occurrence network of terms in which only the most relevant ones have been selected (in this case have been selected 357 terms). The results indicated that the top terms with the largest occurrences were *migrant, evidence, economics, household, income, remittances, China, worker, and employment*. Unfortunately, there was no cluster with specific cultural terms, meaning that in this database the number of publications about the impact of culture on the field of economics of migration is not so significant. Nevertheless, there seem to be several terms and links related to socio-cultural aspects, such as *family, social capital, social network, perception, inequality, attitude, intention*. The fourth analysis was a citation network of countries, showing that the countries with the higher citations are the USA, UK, Germany, China, Netherlands, France, and Italy. The networks of countries partially mirror the ranking of the top languages (English, Spanish and French) presented in the first section of the chapter.

The results from the first chapter indicate that, although the field of economics of migration is developing more and more, its structure still indicates a primary focus on the economic component. Furthermore, regarding the publications about the socio-cultural impact on the economics of migration, although it has received an increased interest lately, it remains underdeveloped, a fact that is shown through the lack of specific clusters of journals/researchers or even the presence of the term “culture”. Although the bibliometric study from Chapter I offers only a descriptive glimpse at the interplay between economics and migration, it can become a constitutive step in creating future thorough analyses.

The thesis’ methodological objectives have been met in Chapter II and Chapter IV. The first methodological objective was to find a valuable quantitative instrument to measure the impact of culture on economic phenomena, including migration processes and, the second one was to create a comprehensive model of migration determinants using partial least squares structural equation modeling. Chapter II addressed the first objective. Given that the literature on the importance of culture on economic outcomes indicates that most of the studies use historical evidence and employ qualitative and mixed research methods, Chapter II aimed at developing a quantitative method by including cultural aspects into the analysis of economic outcomes. The resulting method was a cultural matrix based on Hofstede's cultural dimensions theory which was computed as a cultural distance. By comparing different computing methods of cultural distance, the most inclusive one was a composite measure.

Given the fact that, within the literature, the composite measures of cultural distance are unweighted, the instrument proposed in Chapter II is a weighted cultural distance. The applicability of the two composite measures of cultural distance (unweighted and weighted) was compared in a model explaining Spanish migration flows to 35 OECD countries in the period 2005-2017. The model was replicated for German, Italian and Romanian migration flows for the same OECD countries in the same period. The results confirm the findings of other studies but, also, curiously indicate mixed results regarding the relationship between cultural distance and migration flows. More specifically, the findings indicate a negative relationship between cultural distance and migration flows for the case of an unweighted composite measure of cultural distance and positive/negative ones for the case of a weighted composite measure of cultural distance. Although the model creates similar results in all four case studies, some peculiarities are present. For instance, in the case of Italian migration flows increases in cultural distance, geographical distance, and in the ratio of unemployment rate increase Italian migration flows. Besides, another peculiarity is found in the German migration flows when studying the impact of previous immigrant stock in the destination country. More specifically, in the German case, increases in previous immigrant stock in the destination country decrease future migration flows. Moreover, Chapter II draws special attention to the approach of setting weights, given the fact that overestimating or underestimating a cultural dimension may distort the results. Overall, the chapter argues in favor of using composite measures of cultural distance, especially the weighted ones, to assess correctly the importance of each cultural dimension on the concerned research area.

Another theoretical objective was to explore the impact of cultural factors in making migration decisions (Chapter III). The results from Chapter III reiterate ideas stated in previous studies. More specifically, it demonstrates the fact that cultural variables, in this case, cultural distance, have a significant impact on migration decisions. Although previous studies, such as Belot and Ederveen's research (2012), Antecol's research (2000), Fernandez and Fogli's study (2005), Giuliano's research (2007) have brought significant insights within this area, none of them have focused only on the EU region, nor had the aim of creating migration patterns, starting from the cultural determinant. Therefore, the research from chapter III fills this gap in the literature, the main goal being to explore the influence of cultural distance on migration flows in the EU region to see if there is a model/pattern of general behavior in this regard. The analysis was centered, for the moment, only on the Romanian case, but it can be subsequently applied to all EU countries. To reach this objective, a model representing the causal relationship between culture and migration is created using structural equation modeling. The model uses World Bank migration data for the decades between 1960 and 2000 and a cultural distance based on the six cultural dimensions' model developed by Hofstede et al. (2010). The results of this analysis confirm a significant negative correlation between migration flows and cultural distance in the Romanian case.

The research from Chapter III adds valuable input to the existing literature due to several reasons: firstly, it is focusing on an Eastern European country with a communist past and with an interesting democratic evolution. Secondly, the majority of the studies regarding Romanian migration focuses mainly on its flows to specific countries, such as Italy, Spain, and Germany, whereas this research presents a wider perspective because is centered on the emigration flows to all EU countries. Furthermore, it has several management implications: firstly, the findings demonstrate that cultural aspects are essential in decision-making and, acknowledging this fact, may lead to better solutions to migration problems between various EU countries. Moreover, the results indicate that studying only the economic aspects of migration is not sufficient, there is also a need to grasp the complexity of cultural aspects and their consequences on our lives.

The analysis from Chapter III presents several drawbacks concerning the definitions of culture and migration and the choice to apply this model only to Romania. Given the fact that the study from Chapter III is an exploratory analysis with preliminary results, exactly the research's limitations constitute further lines of research. Firstly, the constructs may be revised; for instance, the construct of cultural distance may include other indicators such as linguistic distance, indexes of religiosity, freedom indices, etc. Secondly, the model may be applied to all EU countries or only to a group of countries. Subsequently, based on the type of correlations between cultural distance and migration flows in those cases, comparative analyses could be created between groups of countries. Moreover, the analysis from Chapter IV serves as a base not only for studying the relationship between culture and migration but also for studying complex relationships between other economic phenomena.

Chapter IV addressed the second methodological objective, aiming at creating a comprehensive model of migration determinants. The study from Chapter IV adds a well-developed model to the literature about the key drivers of migration. Comparing it with other techniques, this path model created through structural equation modeling offers an extensive perspective over migration determinants, taking into account four dimensions: economic, social, cultural, and digital. The path model developed in this exploratory research rests on hypotheses already stated in the literature and the results confirm the findings of previous studies, stressing the fact that social and technological developments have significant impacts on migration. The results indicate that the propensity to migrate is higher when there are increased wealth differentials between origin and destination regions and that propensity to migrate is greater when the dissatisfaction with the social conditions from the origin areas is rising. More specifically, it was demonstrated that economic distance has a positive effect on migration and that social distance has a positive significant effect on migration flows. Furthermore, the findings suggest that migration flows are decreasing when the

cultural differences between countries are increasing, especially when examining *power distance* and *uncertainty avoidance*. This result points out that high differences in the attitudes toward authority and uncertain situations affect migration negatively. Moreover, the findings suggest that migration flows decrease when the differences in digital performance increase, indicating that digital distance has a negative significant effect on migration flows. In this regard, increasing EU investments in ICT development and digital competences is crucial since it will diminish intra-EU discrepancies in technology use, and it will foster economic competitiveness. The results of the mediation analysis indicate the existence of a full mediation effect of digital distance on the relationship between cultural distance and migration flows. In other words, even if a high cultural distance between countries may impede migration, advancements in digital technologies have a counteractive effect, favoring migration.

Drawing upon the above-mentioned results, the research from Chapter IV has several noteworthy implications. Firstly, as in the studies about the relationship between digital and economic development, there is a need to study more thoroughly the impact of digital performance on migration studies. Secondly, it draws particular attention to the social and digital developments in the origin countries. On this subject, the findings from Chapter IV open up the debate on the necessity to adopt more measures targeted at improving countries of origin' digital performance and societal development. More investments in digitalization and social advancement in the origin areas means reduced disparities between these regions and the destination ones and better management of migration flows. Furthermore, these instruments will help improve subjective well-being (Clemens et al., 2014; Stillman et al., 2015) and reduce social exclusion (Novo-Corti et al., 2019; Picatoste et al., 2018), two of the main issues regarding the effects of migration on wellbeing. On the one hand, the analysis from Chapter IV has several shortcomings due to data unavailability regarding the Romanian migration flows to specific EU countries and the unavailability of specific indices for Romania. On the other hand, future versions of this research may bring improvements in the theoretical framework (the model may include more dimensions) or/and in the application area (the model can be applied to other countries). Nevertheless, the study from Chapter IV enriches the existing literature with an original, well-developed path model that explains the complex relationships between migration flows and their key drivers.

The last theoretical objective aimed at analyzing the impact of migration on the inequality in the origin and the destination regions, and the interplay between migration and culture in achieving The Sustainable Development Goals. This objective was accomplished in Chapter V, which comprises three parts. The first part described how migration might decrease/increase the inequality in the destination and the origin countries, illustrating, on the one hand, the disparities between the ones who move and the ones who stay in the origin country and, on the other hand, the inequalities between these two categories in the destination country.

The second part aimed at studying the relationship between gender inequalities and highly skilled migration in the destination area, based on a case study on academia in Brussels. Even though it is a study with preliminary results, it adds an important contribution to a gender-sensitive approach of highly skilled migration for at least two reasons. Firstly, since in the literature there are few studies concerned with the experiences of highly skilled migrants in academia, this research fills this gap, by providing an understanding of the drivers and consequences of highly skilled migration in the destination country through a gender-based approach. Secondly, the research from Chapter V provides original data on how often highly skilled migrants from academia perceive gender discrepancies. The semi-structured questionnaire applied in this research was based on the conceptual framework developed by Mahieu et al. (2015) and contained three parts: the first part focuses on the reasons for migrating. The second part of the questionnaire addressed the type of vulnerabilities that highly skilled migrants in academia were faced with along the migration process and the coping strategies they used as responses to these constraints. The last part of the

questionnaire centers on the perceptions of gender-based discrimination in the working environment and addresses issues related to the changes in the feelings of home and belonging.

The results indicated that, for highly skilled migrants in academia, the most critical factors for migration are social and/or professional networks, economic factors, and educational factors. In addition, as indicated by previous studies, it was emphasized the influence of having networks in the destination country and their role in making a migration decision again. Moreover, when looking at the gendered agency, the most encountered difficulty was the one related to finding employment while completing the Ph.D., few permanent contracts for foreigners, difficulty to integrate with the locals, linguistic restraints, and discriminatory attitudes toward French and Flemish people. When analyzing the coping mechanisms used to overcome the constraints or obstacles along the migration process, it was interesting to observe that the most used strategies were active attempts to achieve desired outcomes and engaging in active self-care. The last part of the questionnaire revealed that migrants working in academia had experienced at least one event that determined significant shifts in their identities. In this regard, we encountered cases of academic exclusion and mobbing and cases of gender-based discrimination where white men feel discriminated by women. Moreover, the results suggest that highly skilled migrants working in academia experienced/have witnessed gender-based discrimination, especially when performing research activities and in achieving academic ranks. Lastly, the changes in the perceptions of home and belonging revealed similar results to the ones envisaged by previous studies, such as multiple belonging, the feeling of belonging associated with the origin country/with Brussels, de-belonging, and transculturality. Even if the research from Chapter V presents limitations in extrapolating its results due to the low number of respondents, the research's relevant implication is that it demonstrates that gender disparities continue to exist even in a high-level educational institution, where the level of awareness on these issues is supposed to be high. Keeping this in mind, the research from Chapter V stands as a testimony for policymakers to take more action to pursue gender equality.

The last part of Chapter V proposes measures to reinforce the idea that migration and culture are important means in achieving sustainable development. It is argued that development policies should rest upon the cornerstone role of migration in creating sound development strategies that maximize everyone’s benefits. Also, the measures from the last chapter bring arguments in favor of a new paradigm, one in which culture is defined as a necessary foundation to achieve sustainable development. The last part of Chapter V proposes means to achieve specific targets and goals within the UN 2030 Agenda, pointing out two imperative needs: the need to create regional/international institutions to tackle migration problems and the need to reshape policies dealing with social life and participation to create strong bridges between communities.

To conclude, the thesis aimed at studying the field of economics of migration, with a focus on the evolution of this field and the study of migration drivers. The above-mentioned results demonstrated that this field is evolving rapidly, but still maintains an emphasis on the economic determinants of migration. In this light, there is a need to explore other factors that may significantly influence the migration process, for instance, cultural and technological ones. Raising the awareness that migration is shaped by many other factors may motivate researchers to put more effort into examining these issues to create an extensive picture of this field. Moreover, a careful understanding of migration drivers may provide us with a good guideline in creating sound development approaches. Some recommendations can be derived from a cultural approach, as the facilitation of holding multiple citizenships, the exploration of cultural symbolism, of cultural goods, and heritage, the elimination of ethnic or religious criteria from the requirements of obtaining permanent residency and citizenship, etc. These measures together with other provisions aiming at achieving gender equality, such as governmental provisions of childcare, policies that help both women and men combine work with family care responsibilities and others aiming at ICT development and digitalization are some essential steps in instrumentalizing migration and culture to create proper sustainable development strategies.

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Appendices

Appendix A

Table A.1 PDI matrix for EU countries using method M1

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	GR	HU	IE	IT	LV	LT	LU	MT	NL	PO	PT	RO	SK	SI	ES	SE	GB
AT	0																											
BE	54	0																										
BG	59	5	0																									
HR	62	8	3	0																								
CY	50	4	9	12	0																							
CZ	46	8	13	16	4	0																						
DK	7	47	52	55	43	39	0																					
EE	29	25	30	33	21	17	22	0																				
FI	22	32	37	40	28	24	15	7	0																			
FR	57	3	2	5	7	11	50	28	35	0																		
DE	24	30	35	38	26	22	17	5	2	33	0																	
GR	49	5	10	13	1	3	42	20	27	8	25	0																
HU	35	19	24	27	15	11	28	6	13	22	11	14	0															
IE	17	37	42	45	33	29	10	12	5	40	7	32	18	0														
IT	39	15	20	23	11	7	32	10	17	18	15	10	4	22	0													
LV	33	21	26	29	17	13	26	4	11	24	9	16	2	16	6	0												
LT	31	23	28	31	19	15	24	2	9	26	7	18	4	14	8	2	0											
LU	29	25	30	33	21	17	22	0	7	28	5	20	6	12	10	4	2	0										
MT	45	9	14	17	5	1	38	16	23	12	21	4	10	28	6	12	14	16	0									
NL	27	27	32	35	23	19	20	2	5	30	3	22	8	10	12	6	4	2	18	0								
PO	57	3	2	5	7	11	50	28	35	0	33	8	22	40	18	24	26	28	12	30	0							
PT	52	2	7	10	2	6	45	23	30	5	28	3	17	35	13	19	21	23	7	25	5	0						
RO	79	25	20	17	29	33	72	50	57	22	55	30	44	62	40	46	48	50	34	52	22	27	0					
SK	89	35	30	27	39	43	82	60	67	32	65	40	54	72	50	56	58	60	44	62	32	37	10	0				
SI	60	6	1	2	10	14	53	31	38	3	36	11	25	43	21	27	29	31	15	33	3	8	19	29	0			
ES	46	8	13	16	4	0	39	17	24	11	22	3	11	29	7	13	15	17	1	19	11	6	33	43	14	0		
SE	20	34	39	42	30	26	13	9	2	37	4	29	15	3	19	13	11	9	25	7	37	32	59	69	40	26	0	
GB	24	30	35	38	26	22	17	5	2	33	0	25	11	7	15	9	7	5	21	3	33	28	55	65	36	22	4	0

**all values from Table A.1 have been transformed into absolute values; therefore the ones that have been changed are colored in red.*

Table A.2 Cultural matrix for EU countries using method M2

	AT	*BE*	*BG*	*HR*	*CY*	*CZ*	*DK*	*EE*	*FI*	*FR*	*DE*	*GR*	*HU*	*IE*	*IT*	*LV*	*LT*	*LU*	*MT*	*NL*	*PO*	*PT*	*RO*	*SK*	*SI*	*ES*	*SE*	*GB*
AT	0																											
BE	89	0																										
BG	-28	-117	0																									
HR	-21	-110	7	0																								
CY	5	-84	33	26	0																							
CZ	7	-82	35	28	2	0																						
DK	-102	-191	-74	-81	-107	-109	0																					
EE	-50	-139	-22	-29	-55	-57	52	0																				
FI	-62	-151	-34	-41	-67	-69	40	-12	0																			
FR	41	-48	69	62	36	34	143	91	103	0																		
DE	18	-71	46	39	13	11	120	68	80	-23	0																	
GR	9	-80	37	30	4	2	111	59	71	-32	-9	0																
HU	47	-42	75	68	42	40	149	97	109	6	29	38	0															
IE	-48	-137	-20	-27	-53	-55	54	2	14	-89	-66	-57	-95	0														
IT	24	-65	52	45	19	17	126	74	86	-17	6	15	-23	72	0													
LV	-70	-159	-42	-49	-75	-77	32	-20	-8	-111	-88	-79	-117	-22	-94	0												
LT	-54	-143	-26	-33	-59	-61	48	-4	8	-95	-72	-63	-101	-6	-78	16	0											
LU	2	-87	30	23	-3	-5	104	52	64	-39	-16	-7	-45	50	-22	72	56	0										
MT	33	-56	61	54	28	26	135	83	95	-8	15	24	-14	81	9	103	87	31	0									
NL	-18	-107	10	3	-23	-25	84	32	44	-59	-36	-27	-65	30	-42	52	36	-20	-51	0								
PO	14	-75	42	35	9	7	116	64	76	-27	-4	5	-33	62	-10	84	68	12	-19	32	0							
PT	-57	-146	-29	-36	-62	-64	45	-7	5	-98	-75	-66	-104	-9	-81	13	-3	-59	-90	-39	-71	0						
RO	-14	-103	14	7	-19	-21	88	36	48	-55	-32	-23	-61	34	-38	56	40	-16	-47	4	-28	43	0					
SK	70	-19	98	91	65	63	172	120	132	29	52	61	23	118	46	140	124	68	37	88	56	127	84	0				
SI	-36	-125	-8	-15	-41	-43	66	14	26	-77	-54	-45	-83	12	-60	34	18	-38	-69	-18	-50	21	-22	-106	0			
ES	-10	-99	18	11	-15	-17	92	40	52	-51	-28	-19	-57	38	-34	60	44	-12	-43	8	-24	47	4	-80	26	0		
SE	-71	-160	-43	-50	-76	-78	31	-21	-9	-112	-89	-80	-118	-23	-95	-1	-17	-73	-104	-53	-85	-14	-57	-141	-35	-61	0	
GB	7	-82	35	28	2	0	109	57	69	-34	-11	-2	-40	55	-17	77	61	5	-26	25	-7	64	21	-63	43	17	78	0

Source: Own elaboration

Table A.3 Cultural matrix for EU countries using method M3

Country/Indicator	PDI	IDV	MAS	UAI	LTO	IVR
Austria	41	3	33	2	3	19
Belgium	13	17	8	22	25	13
Bulgaria	18	28	6	13	12	28
Croatia	21	25	6	8	1	11
Cyprus	9	23	9	25	12	6
Czech Republic	5	0	11	2	13	15
Denmark	34	16	30	49	22	26
Estonia	12	2	16	12	25	28
Finland	19	5	20	13	19	13
France	16	13	3	14	6	4
Germany	17	9	20	7	26	4
Greece	8	23	11	28	12	6
Hungary	6	22	42	10	1	13
Ireland	24	12	22	37	33	21
Italy	2	18	24	3	4	14
Latvia	8	12	37	9	12	31
Lithuania	10	2	27	7	25	28
Luxembourg	12	2	4	2	7	12
Malta	4	1	1	24	10	22
Netherlands	14	22	32	19	10	24
Poland	16	2	18	21	19	15
Portugal	11	31	15	27	29	11
Romania	38	28	4	18	5	24
Slovakia	48	6	54	21	20	16
Slovenia	19	31	27	16	8	4
Spain	5	7	4	14	9	0
Sweden	21	13	41	43	4	34
United Kingdom	17	31	20	37	6	25

Source: Own elaboration

Table A 4 Cultural matrix for EU countries using method M4

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	GR	HU	IE	IT	LV	LT	LU	MT	NL	PO	PT	RO	SK	SI	ES	SE	GB
AT	0																											
BE	71	0																										
BG	90	65	0																									
HR	83	58	21	0																								
CY	68	55	47	33	0																							
CZ	62	41	39	37	46	0																						
DK	85	105	115	102	104	95	0																					
EE	78	65	52	56	74	39	86	0																				
FI	63	72	77	64	63	60	44	61	0																			
FR	73	26	52	42	44	32	92	56	55	0																		
DE	44	47	67	65	66	32	88	44	63	50	0																	
GR	68	56	49	36	4	48	107	77	65	46	67	0																
HU	56	54	76	72	64	42	107	71	77	54	42	64	0															
IE	56	92	105	92	84	78	56	90	52	81	71	85	73	0														
IT	56	45	61	58	56	25	94	53	63	39	32	57	20	69	0													
LV	94	75	61	63	82	55	82	27	58	59	65	84	85	96	65	0												
LT	85	67	52	57	76	45	88	12	62	57	54	78	79	97	60	20	0											
LU	42	42	61	51	47	34	71	49	38	36	31	49	52	59	38	61	54	0										
MT	63	41	65	50	30	50	90	75	50	31	62	31	61	75	53	78	75	36	0									
NL	77	66	89	78	83	68	49	60	38	58	64	86	88	73	73	57	59	46	64	0								
PO	75	55	52	44	35	39	108	72	68	40	64	36	45	81	38	76	75	54	44	88	0							
PT	93	80	48	38	35	64	108	80	67	61	89	36	87	98	76	78	78	68	53	93	49	0						
RO	103	71	27	25	45	53	123	73	84	56	83	47	82	109	70	77	73	73	65	99	46	41	0					
SK	101	81	80	77	86	66	136	94	112	80	77	87	72	105	69	110	102	86	96	117	75	107	78	0				
SI	93	69	43	29	39	60	100	71	62	52	83	42	93	99	78	70	68	60	49	77	60	32	41	103	0			
ES	65	47	43	29	24	34	87	56	44	28	55	27	58	74	44	60	57	33	26	63	33	38	46	87	36	0		
SE	90	95	108	95	101	91	27	80	46	84	86	104	111	71	95	76	80	67	85	33	108	106	117	133	90	83	0	
GB	57	76	105	93	89	71	58	81	56	72	57	91	66	34	60	89	88	52	74	58	84	109	112	97	103	76	65	0

Source: Own elaboration

Appendix B

Table A.5 Indicators for reflective measurement model constructs

Migration flows		***Source***
Outflows_1	Migration outflows from Romania to 21 countries in 2007.	https://stats.oecd.org/
Outflows_2	Migration outflows from Romania to 21 countries in 2008.	https://stats.oecd.org/
Outflows_3	Migration outflows from Romania to 21 countries in 2009.	https://stats.oecd.org/
Outflows_4	Migration outflows from Romania to 21 countries in 2010.	https://stats.oecd.org/
Outflows_5	Migration outflows from Romania to 21 countries in 2011.	https://stats.oecd.org/
Outflows_6	Migration outflows from Romania to 21 countries in 2012.	https://stats.oecd.org/
Outflows_7	Migration outflows from Romania to 21 countries in 2013.	https://stats.oecd.org/
Outflows_8	Migration outflows from Romania to 21 countries in 2014.	https://stats.oecd.org/
Outflows_9	Migration outflows from Romania to 21 countries in 2015.	https://stats.oecd.org/
Outflows_10	Migration outflows from Romania to 21 countries in 2016.	https://stats.oecd.org/
Outflows_11	Migration outflows from Romania to 21 countries in 2017.	https://stats.oecd.org/
Econ dist.		***Source***
Econ_1	The difference in Index of Economic Freedom for the period 2007-2017.	https://www.heritage.org/index/
Econ_2	The difference in GDP/cap for the period 2007-2017.	https://ec.europa.eu/eurostat (Online data code: TEC00114)
Econ_3	The difference in the minimum wage for the period 2007-2017.	https://ec.europa.eu/eurostat (Online code data: earn_mw_cur)
Econ_4	Difference in total public expenditure for the period 2008-2017.	https://ec.europa.eu/eurostat Online code data: [spr_exp_sum]
Social dist.		***Source***
Social_1	The difference in Social Progress Index for 2014.	https://www.socialprogress.org/index
Social_2	The difference in Social Progress Index for 2015.	https://www.socialprogress.org/index
Social_3	The difference in Social Progress Index for 2016.	https://www.socialprogress.org/index
Social_4	The difference in Social Progress Index for 2017.	https://www.socialprogress.org/index
Social_5	The difference in Social Progress Index for 2018.	https://www.socialprogress.org/index
Social_6	The difference in Social Progress Index for 2019.	https://www.socialprogress.org/index
Cult dist.		***Source***
Cult_1	The difference in PDI Hofstede cultural dimension.	https://www.hofstede-insights.com/
Cult_2	The difference in UAI Hofstede cultural dimension.	https://www.hofstede-insights.com/
Tech dist.		***Source***
Tech_1	The difference in Digital Economy and Society Index for 2014.	https://ec.europa.eu/digital-single-market/en/desi
Tech_2	The difference in Digital Economy and Society Index for 2015.	https://ec.europa.eu/digital-single-market/en/desi
Tech_3	The difference in Digital Economy and Society Index for 2016.	https://ec.europa.eu/digital-single-market/en/desi
Tech_4	The difference in Digital Economy and Society Index for 2017.	https://ec.europa.eu/digital-single-market/en/desi
Tech_5	The difference in Digital Economy and Society Index for 2018.	https://ec.europa.eu/digital-single-market/en/desi
Tech_6	The difference in Digital Economy and Society Index for 2019.	https://ec.europa.eu/digital-single-market/en/desi

Note: Each indicator was calculated as the difference between each of the 21 country's scores and the ones for Romania.

Source: Own elaboration

Appendix C

Semi-structured questionnaire

Gendered macro-structural factors

1. According to your migration experience, please rank the below list of drivers of migration:

N	0	1	2	3	4
I do not want to express my opinion	No importance	Low importance	Middle importance	High importance	Extreme importance

- Socio-political factors (war, conflict, fear of persecution)
- Economic factors (higher wages, better employment opportunities, a higher standard of living)
- Educational factors (better educational opportunities, previous studies in the country)
- Family reasons (following a spouse, presence of a relative)
- Social and/or professional network (personal contact with a senior academic or colleague)
- Other (please specify)…

2. On a scale from 1-completely disagree to 5-completely agree, please rate the following statements about socio-economic models in the origin country and in Belgium:

1	2	3	4	5
Completely disagree	*Generally disagree*	*Do not know*	*Generally agree*	*Completely agree*

- The male breadwinner model is an ideal of the family in which men earn a family wage and provide while wives do domestic labor and care for family members. Having this definition in mind, before migrating, in your origin country predominated a 'male breadwinner model'.
- Before migration, your origin country was characterized by a patriarchal social system.
- The *dual-earner* model refers to a social and economic arrangement in which men and women engage symmetrically in both paid work in the labor market and in unpaid work in the home. After migrating, Belgium was described by 'dual-earner model'.
- After migrating, Belgium was characterized by a patriarchal social system.

3. Did you have any migration network in Belgium before migration?
   Yes/No

Gendered agency

4. Along your migration process, what type of opportunities have you met?

5. Along your migration process, what type of constraints have you met?
6. The following question is about the coping mechanisms used to manage stressful or complicated situations. Please rate the frequency of the following examples of coping strategies used to overcome the constraints or obstacles along the migration process.

1	2	3	4	5	6
Never	*Seldom*	*Sometimes*	*Often*	*Usually*	*Always*

- Active attempts to achieve desired outcomes through strategizing, analyzing, preventing, negotiation.
- Give up control of a situation without attempts to improve situation through being passive, through negative thinking, self-blame, distraction.
- Draw on support from other individuals or religion through reaching out to others, seeking comfort, praying.
- Engage in active self-care through relaxing, controlling one's own emotions constructively, encouraging oneself.
- Withdraw from others physically or emotionally to prevent others knowing about it.
- Attack the source of the situation using aggression, blaming others, taking revenge, being defiant.

Changes in gender relations throughout the academic career in Belgium

7. During the whole migration period, there are certain events that determine significant shifts in migrants' identities. Did such an event happened to you?
   Yes/No

8. If the answer to the above question is yes, did this event affected your identity in:
- Academic life
- Family life
- Public participation
- Other (please specify)…

9. If the answer to question seven is yes, can you please give an example of such an event that caused a significant shift in your identity and how this affected a specific life domain?

10. Before migrating to Belgium, how many years of experience in academia have you had?
- <2 years
- 3-5 years
- 6-10 years
- >10 years

11. In Belgium, was there any moment when you were unable to gain an academic position based on your original qualifications?
    Yes/No

12. How often did you experience the following situations during the process of publishing your academic papers, books, etc.?

1	2	3	4	5	6
Never	*Seldom*	*Sometimes*	*Often*	*Usually*	*Always*

- Difficulties or unwelcome remarks due to your gender.
- Being denied the opportunity to be a journal's editor due to your gender.
- Invitations to reviewers according to gender preferences.
- Pressures to cite specific references due to gender preferences.

13. How often did you experience the following situations in performing research activities?

1	2	3	4	5	6
Never	*Seldom*	*Sometimes*	*Often*	*Usually*	*Always*

- Being rejected to attend an academic conference due to your gender.
- Being evaluated more harshly because of your sex or because you do not act or present yourself in a way that conforms to traditional ideas of femininity or masculinity.
- Being disciplined for something that other colleagues of different sex do all the time but never are punished for.
- Being insulted, called derogatory names, because of your sex.
- Hearing hostile remarks about people of a certain sex, gender, or gender identity.
- Being denied a research opportunity (courses, study abroad programs, research and teaching assistantships) that is given to people of another sex who are equally or less qualified or eligible as you.

14. How often did you experience the following situations in your teaching activities?

1	2	3	4	5	6
Never	*Seldom*	*Sometimes*	*Often*	*Usually*	*Always*

- Being insulted or called derogatory names because of your sex by your peers.
- Being insulted or called derogatory names because of your sex by your students.
- Hearing hostile remarks about people of a certain sex, gender, or gender identity by your peers.
- Hearing hostile remarks about people of a certain sex, gender, or gender identity by your students.
- Experiencing/ witnessing verbal or physical harassment of a sexual nature by your peers.
- Experiencing/ witnessing verbal or physical harassment of a sexual nature by your students.

15. How often did you experience the following situations in achieving a specific academic rank?

1	2	3	4	5	6
Never	*Seldom*	*Sometimes*	*Often*	*Usually*	*Always*

- Not being hired, or being given a lower-paying position because of your sex.
- Being subject to unwelcome sexual advances or requests for sexual favors to obtain an academic position.
- Being paid less than a person of different sex who is similar or less qualified than you, or who has similar (or fewer) academic responsibilities than you.
- Being rejected for a higher position, forced out on leave, or given fewer assignments because you are pregnant/having children.

16. Have your pre-migration academic expectations and objectives met with the post-migration reality?
    Yes/No

17. Do you believe that Belgian policymakers are taking enough measures to reduce the gender disparities in academia?
    Yes/No

18. Throughout the migration process, have you noticed a change in your perception of belonging/home?
    Yes/No

19. If yes, can you please define in a few phrases what it meant for you this change?

Socio-demographic characteristics

20. Years living in Belgium
    - <1 year
    - 1-3 years
    - 4-5 years
    - >5 years

21. Academic position
    - Graduates (ISCED 6-7)
    - Ph.D. graduate (ISCED 8)
    - Assistant Professor
    - Associate professor
    - Full professor

22. How many hours do you work on average per week?
    - less than 29 hours,
    - around 30–49 hours,
    - around 50–69 hours,
    - 70 hours or more.

23. Marital status:
    - single
    - married
    - separated/ divorced
    - widowed

24. How many children younger than 20 are living in your household (including own children, stepchildren and foster children)?:

- 0 (none)
- 1 (one)
- 2 (two)
- 3 (three)
- 4 (four or more)

25. Gender: F/M

26. Country of origin…

27. Age

- <30
- 30-39
- 40-49
- 50-59
- >60

Appendix D

Resumen

Las crisis de migrantes y refugiados se basan en disparidades económicas, sociales, culturales, humanitarias, etc. entre los países de origen y de destino. Dependiendo de la eficacia con que se gestionen, estas crisis pueden agravar o atenuar los problemas tanto en unos como en otros. Esta tesis doctoral busca posibles respuestas a dos preguntas "*¿Por qué han surgido estas crisis?"* y "*¿Cómo se pueden gestionar adecuadamente para no socavar de ninguna manera ninguno de los países implicados?"* centrarse en la comprensión de los motores de la migración y en las posibles formas de gestionar eficazmente las crisis migratorias. Esta tesis gira en torno a la hipótesis de que las decisiones migratorias están relacionadas con la confluencia de factores económicos, sociales, culturales y tecnológicos que cambian continuamente y que impactan tanto en las regiones de origen como en las de destino. Además, la tesis parte de la premisa de que la migración y la cultura son aspectos clave para el diseño de estrategias de desarrollo sostenible. En los distintos capítulos, se abordan los objetivos que se indican a continuación.

El primer objetivo, abordado en el capítulo I, está dirigido a analizar la evolución de la literatura académica en el campo de la economía de la migración, así como sus características definitorias. Partiendo del supuesto de que el campo de la economía de la migración está registrando un interés creciente en el tiempo, se plantea como objetivo secundario analizar el peso de los factores socioculturales en el subcampo de la economía de la migración. Así, el capítulo I ofrece una imagen coherente de la estructura de los campos interrelacionados de la "economía" y la "migración", que consta de tres partes. La primera parte se centra en la evolución del número de publicaciones sobre ambos temas antes y después de la crisis económica iniciada en 2007-2008 y un análisis de los principales idiomas utilizados en tres bases de datos bibliográficas: Web of Science, Scopus y EconLit. Los resultados indican un notable aumento de las publicaciones sobre los temas de "migración", "economía" y "cultura" después de la crisis de 2007-2008, principalmente en las bases de datos Web of Science y Scopus. Se prestó especial atención al número de publicaciones sobre el tema "cultura y economía" y sobre "cultura y migración", que después de la crisis se han más que duplicado en las tres bases de datos respecto al período anterior. En cuanto a los principales idiomas de las publicaciones sobre estos temas, los resultados demuestran que el inglés es el idioma predominante en todos ellos. Además, el francés y el español son los siguientes idiomas principales con variaciones entre las bases de datos y temática.

La segunda parte incluye dos análisis de citas sobre dos temas: el primero sobre "cultura nacional y migración" y el segundo sobre "economía y migración" utilizando informes de citas de la base de datos Web of Science para el período 1990-2021. La investigación se centró en el número total de publicaciones, el índice h, el promedio de citas por ítem, las sumas de veces citadas y el número de artículos citados. Los resultados confirman la tendencia ascendente del número de publicaciones sobre el tema de la economía de la migración. El análisis de los artículos citados de las publicaciones muestra que las principales áreas de investigación son las ciencias ambientales, la economía de la empresa, la geografía y la sociología, y que provienen de los Estados Unidos, el Reino Unido, China, Australia y Alemania.

La tercera parte consistió en cuatro análisis de redes bibliométricas sobre 1.188 publicaciones relacionadas con la "economía" y la "migración" exportadas desde la "Web of Science Core Collection" para el período 1958-2021 utilizando el programa VOSviewer. La red de acoplamiento bibliométrico de investigadores identificó seis clústeres de investigadores, el clúster más grande con 14 investigadores, entre los que se encuentran los siguientes: Demurger Silvie, Dustmann Christian, Falco Chiara, Stark O., Hatton Timothy, etc. El segundo análisis fue una red de co-citas de revistas y muestra que las revistas con mayor número de citas son "American

Economic Review", "Journal of Political Economy", "International Migration Review", "Journal of Development Economics" y "World Development". Además, se distinguen dos amplios grupos de revistas, uno con contenidos sobre migraciones y mercado de trabajo, y otro que contiene revistas que publican investigaciones sobre economía y desarrollo. El tercer análisis fue una red de co-ocurrencia de términos en la que sólo se han seleccionado los más relevantes (en este caso se han seleccionado 357 términos). Los resultados indicaron que los términos con mayores ocurrencias fueron "migrant", "evidence", "economics", "household", "income", "remittances", "China", "worker", and "employment". Lamentablemente, no había ningún clúster con términos culturales específicos, lo que indica que en esta base de datos el número de publicaciones sobre el impacto de la cultura en el campo de la economía de la migración no es muy significativo. Sin embargo, se encuentran términos y vínculos relacionados con aspectos socioculturales, como "family", "social capital", "social network", "perception", "inequality", "attitude", "intention". El cuarto análisis se centró en el estudio de redes de citas por países, mostrando que los más destacados por volumen de citas son los EE.UU., Reino Unido, Alemania, China, Países Bajos, Francia e Italia. Las redes de países reflejan parcialmente el ranking de los principales idiomas (inglés, español y francés) presentado en la primera sección del capítulo.

Los resultados del primer capítulo muestran que, aunque el campo de la economía de la migración se está desarrollando cada vez más, su estructura todavía indica un enfoque primario en el componente económico. Además, con respecto a las publicaciones sobre el impacto sociocultural en la economía de la migración, a pesar de que ha recibido un mayor interés últimamente, sigue estando poco desarrollada, tal como demuestra la ausencia de grupos específicos de revistas/ investigadores o incluso del término "cultura". Aunque el estudio bibliométrico del capítulo I sólo ofrece una visión descriptiva de la interacción entre la economía y la migración, constituye un primer avance para futuros análisis exhaustivos.

Los objetivos metodológicos de la tesis se han cumplido en los Capítulos II y IV. El primer objetivo metodológico es encontrar un instrumento cuantitativo valioso para medir el impacto de la cultura sobre los fenómenos económicos, incluidos los procesos migratorios y, la segunda es crear un modelo comprensivo de los determinantes de la migración utilizando un modelo de ecuaciones estructurales por el método de mínimos cuadrados parciales. En el Capítulo II se aborda el primer objetivo. Dado que la literatura sobre la importancia de la cultura en los resultados económicos indica que la mayoría de los estudios utilizan evidencia histórica y emplean métodos de investigación cualitativos y mixtos, el Capítulo II tiene como objetivo desarrollar un método cuantitativo mediante la inclusión de los aspectos culturales en el análisis de los resultados económicos. El método resultante es una matriz cultural basada en la teoría de las dimensiones culturales de Hofstede. La matriz cultural fue computada como una distancia cultural. Al comparar diferentes métodos de computación de la distancia cultural, el más inclusivo ha sido una medida compuesta.

Dado que en la literatura académica las medidas compuestas de la distancia cultural no utilizan ponderaciones, el instrumento propuesto en el Capítulo II se basa en una distancia cultural ponderada. La aplicabilidad de las dos medidas compuestas de distancia cultural (no ponderada y ponderada) se comparó en un modelo que explica los flujos migratorios españoles a 35 países de la OCDE en el período 2005-2017. El modelo se repitió para los flujos migratorios alemanes, italianos y rumanos de los mismos países de la OCDE en el mismo período. Los resultados confirman los hallazgos de otros estudios, pero también indican curiosamente resultados mixtos en cuanto a la relación entre la distancia cultural y los flujos migratorios. Más concretamente, los resultados indican una relación negativa entre la distancia cultural y los flujos migratorios en el caso de la medida compuesta no ponderada de la distancia cultural y una relación positiva/negativa en el caso de la medida compuesta ponderada de la distancia cultural. Aunque el modelo ofrece resultados similares en los cuatro casos, se encuentran ciertas peculiaridades. Por ejemplo, en el caso de los flujos migratorios italianos, la distancia cultural, la distancia geográfica y la proporción

de la tasa de desempleo aumentan los flujos migratorios; otra peculiaridad se encuentra en el caso de los flujos migratorios alemanes al estudiar el impacto de la población de inmigrantes anteriores en el país de destino. Más concretamente, en el caso de Alemania, el aumento de la población de inmigrantes anteriores en el país de destino reduce los futuros flujos migratorios. El capítulo II llama especialmente la atención sobre el enfoque de establecer ponderaciones, dado que sobrestimar o subestimar una dimensión cultural puede distorsionar los resultados. En general, el capítulo argumenta a favor de utilizar medidas compuestas de distancia cultural, especialmente las ponderadas, para evaluar correctamente la importancia de cada dimensión cultural en el área de investigación en cuestión.

Otro objetivo, ha sido explorar el impacto de los factores culturales en la toma de decisiones migratorias (Capítulo III). Los resultados obtenidos ratifican las ideas expuestas en estudios académicos anteriores. Más concretamente, demuestran el hecho de que las variables culturales, en este caso, la distancia cultural, tienen un impacto significativo en las decisiones migratorias. Aunque estudios anteriores, como la investigación de Belot y Ederveen (2012), la investigación de Antecol (2000), el estudio de Fernández y Fogli (2005), la investigación de Giuliano (2007) han aportado información significativa en este ámbito, ninguno de ellos se ha centrado únicamente en la región de la UE, ni han tenido como objetivo explicar patrones migratorios, partiendo del determinante cultural. Por lo tanto, la investigación de este capítulo contribuye a rellenar esta laguna en la literatura académica, el principal objetivo se ha centrado en explorar la influencia de la distancia cultural en los flujos migratorios en la región de la UE para ver si hay un modelo/ patrón de comportamiento general en este sentido. El análisis se enfocó en el caso rumano, aunque es susceptible de ser aplicado a cualquiera de los países de la UE. Para alcanzar este objetivo, se ha creado un modelo que representa la relación causal entre cultura y migración utilizando un modelo de ecuaciones estructurales en el software Smart-PLS. El modelo utiliza datos de migración del Banco Mundial para las décadas entre 1960 y 2000 y construye una herramienta para evaluar la distancia cultural, basada en el modelo de seis dimensiones culturales desarrollado por Hofstede et al. (2010). Los resultados de este análisis confirman una correlación negativa significativa entre los flujos migratorios y la distancia cultural en el caso rumano.

La investigación del Capítulo III añade una valiosa contribución a la literatura existente debido a varias razones: en primer lugar, se centra en un país de Europa del Este con un pasado comunista y con una interesante evolución democrática. En segundo lugar, la mayoría de los estudios sobre la migración rumana se centran principalmente en sus flujos a países específicos, como Italia, España y Alemania, mientras que esta investigación presenta una perspectiva más amplia porque se centra en los flujos de emigración a todos los países de la UE. Además, esta investigación tiene varias implicaciones útiles para los gestores de políticas públicas: en primer lugar, los resultados demuestran que los aspectos culturales son esenciales en la toma de decisiones y, reconociendo este hecho, pueden ayudar a alcanzar mejores soluciones a los problemas de migración en el contexto de la UE. Además, los resultados indican que estudiar sólo los aspectos económicos de la migración no es suficiente, también es necesario comprender la complejidad de los aspectos culturales y sus consecuencias.

El análisis del Capítulo III presenta varios inconvenientes en relación con las definiciones de cultura y migración y la opción de aplicar este modelo únicamente a Rumanía. Dado que el estudio de es un análisis exploratorio con resultados preliminares, exactamente las limitaciones de la investigación constituyen otras líneas de investigación. En primer lugar, pueden revisarse los conceptos; por ejemplo, la construcción de la distancia cultural puede incluir otros indicadores como la distancia lingüística, los índices de religiosidad, los índices de libertad, etc. En segundo lugar, el modelo puede aplicarse a todos los países de la UE o solo a un grupo de países. Posteriormente, teniendo en cuenta el tipo de correlaciones entre la distancia cultural y los flujos migratorios en esos casos, se pueden hacer análisis comparativos entre grupos de países. Una versión ampliada de la investigación del capítulo III puede incorporar períodos más recientes.

Además, el análisis del Capítulo IV sirve como base no sólo para estudiar la relación entre cultura y migración, sino también para estudiar las complejas relaciones entre otros fenómenos económicos.

En el Capítulo IV se aborda el segundo objetivo metodológico, encaminado a crear un modelo global de los determinantes de la migración. El estudio del Capítulo IV añade un modelo fundamentado la literatura sobre los principales factores impulsores de la migración. Comparándolo con otras técnicas, este modelo, creado mediante ecuaciones estructurales, ofrece una amplia perspectiva sobre los determinantes de la migración, teniendo en cuenta cuatro dimensiones: económica, social, cultural y digital. El modelo de trayectoria desarrollado en esta investigación exploratoria se basa en las hipótesis expuestas en la literatura académica, y los resultados confirman los hallazgos de estudios anteriores, destacando el hecho de que los desarrollos sociales y tecnológicos tienen impactos significativos en la migración. Los resultados indican que la propensión a migrar es mayor cuando existen mayores diferencias de riqueza entre las regiones de origen y destino y que la propensión a migrar es mayor cuando aumenta la insatisfacción con las condiciones sociales de las áreas de origen. Más concretamente, se demuestra que la distancia económica tiene un efecto positivo en la migración y que la distancia social tiene un efecto positivo significativo en las corrientes migratorias. Además, los resultados indican que las corrientes migratorias están disminuyendo cuando aumentan las diferencias culturales entre los países, especialmente al examinar el índice de la *distancia de poder* ("*power distance"*) y el índice de la *evitación de la incertidumbre* ("*uncertainty avoidance"*). Este resultado señala que las altas diferencias en las actitudes hacia la autoridad y las situaciones inciertas afectan negativamente a la migración. Además, los resultados sugieren que los flujos migratorios disminuyen cuando aumentan las diferencias en digitalización, lo que indica que la distancia digital tiene un efecto negativo significativo en los flujos migratorios. En este sentido, es crucial aumentar las inversiones de la UE en el desarrollo de las TIC y las competencias digitales, ya que reducirá las discrepancias dentro de la UE en el uso de la tecnología y fomentará la competitividad económica. Los resultados del análisis de mediación indican la existencia de un efecto de mediación total de la distancia digital en la relación entre la distancia cultural y los flujos migratorios. En otras palabras, incluso si una gran distancia cultural entre países puede impedir la migración, los avances en las tecnologías digitales tienen un efecto contrario, favoreciendo la migración.

Basándonos en los resultados mencionados anteriormente, la investigación del Capítulo IV tiene varias implicaciones destacables. En primer lugar, como en los estudios sobre la relación entre el desarrollo digital y el económico, es necesario estudiar más a fondo el impacto del rendimiento digital en los estudios sobre migración. En segundo lugar, el Capítulo IV llama especialmente la atención sobre la evolución social y digital en los países de origen, abriendo el debate sobre la necesidad de adoptar más medidas destinadas a mejorar el rendimiento digital y el desarrollo de la sociedad en los países de origen. El aumento de las inversiones en digitalización y promoción social en las zonas de origen significa reducir las disparidades entre estas regiones y las de destino y mejorar la gestión de los flujos migratorios. Además, estos instrumentos pueden ayudar a mejorar el bienestar subjetivo (Clemens et al., 2014; Stillman et al., 2015) y reducir la exclusión social (Novo-Corti et al., 2019; Picatoste et al., 2018), dos de los principales temas relacionados con los efectos de la migración en el bienestar. Por una parte, el análisis del capítulo IV presenta varias limitaciones debido a la falta de datos sobre los flujos migratorios rumanos hacia determinados países de la UE y a la falta de índices específicos para Rumanía. Por otra parte, las futuras versiones de esta investigación pueden aportar mejoras en el marco teórico (el modelo puede incluir más dimensiones) o/y en el área de aplicación (el modelo puede aplicarse a otros países). No obstante, el estudio del Capítulo IV enriquece la literatura existente con un modelo original atentamente desarrollado que explica las complejas relaciones entre los flujos migratorios y sus motores clave.

El último objetivo teórico apunta a analizar el impacto de la migración en la desigualdad en las regiones de origen y de destino, y la interacción entre migración y cultura en el logro de los Objetivos de Desarrollo Sostenible. Este objetivo se aborda en el Capítulo V, que consta de tres partes. La primera parte describe cómo la migración puede disminuir/aumentar la desigualdad en los países de destino y de origen, ilustrando, por un lado, las disparidades entre los que se desplazan y los que permanecen en el país de origen y, por otra parte, las desigualdades entre estas dos categorías en el país de destino. La segunda parte se centra, como objetivo, en estudiar la relación entre las desigualdades de género y la migración altamente cualificada en la zona de destino, basándose en un estudio de caso sobre el mundo académico en Bruselas. Aunque se trata de un estudio con resultados preliminares, añade una importante contribución a un enfoque sensible al género de la migración altamente calificada, al menos por dos razones. En primer lugar, dado que en la literatura hay pocos estudios relacionados con las experiencias de los inmigrantes altamente cualificados en el mundo académico, esta investigación llena este vacío, proporcionando una comprensión de los factores y las consecuencias de la migración altamente cualificada en el país de destino a través de un enfoque basado en el género. En segundo lugar, la investigación del Capítulo V proporciona datos originales sobre la frecuencia con la que los migrantes altamente calificados del mundo académico perciben discrepancias de género. El estudio basado en un cuestionario semiestructurado aplicado en esta investigación, se fundamentó en el marco conceptual desarrollado por Mahieu et al. (2015) y consta de tres partes: la primera parte se centra en las razones de la migración y en las percepciones de los entrevistados sobre las cambiantes ideologías sociales en las regiones de origen y destino. La segunda parte del cuestionario abordó el tipo de vulnerabilidades que afrontaron los migrantes altamente calificados en el mundo académico a lo largo del proceso de migración y las estrategias de afrontamiento que utilizaron como respuesta a estas limitaciones. La última parte del cuestionario se enfocó hacia las percepciones de la discriminación de género en el entorno laboral y abordó cuestiones relacionadas con los cambios en los sentimientos de hogar y pertenencia.

Los resultados indican que, para los migrantes altamente calificados en la academia, los factores más importantes para la migración son las redes sociales y/o profesionales, los factores económicos y los educativos. Además, como indican estudios previos, se enfatizó de nuevo la importancia de tener redes en el país de destino y su rol en la toma de las decisiones migratorias. Además, al mirar la agencia de género ("gendered agency"), la dificultad encontrada con más frecuencia fue la relacionada con el hecho de encontrar empleo al acabar el doctorado, la existenic de pocos contratos permanentes para extranjeros, la dificultad para integrarse con los lugareños, las restricciones lingüísticas y ciertas actitudes discriminatorias. Al analizar los mecanismos de afrontamiento utilizados para superar las limitaciones u obstáculos a lo largo del proceso de migración, fue interesante observar que las estrategias más utilizadas fueron los intentos activos y el autocuidado activo. La última parte del cuestionario reveló que los migrantes que trabajan en la academia habían experimentado al menos un evento que determinó cambios significativos en sus identidades. En este sentido, hemos encontrado casos de exclusión académica y acoso psicológico, y situaciones de discriminación de género en los que los hombres blancos se sentían discriminados por las mujeres. Además, los resultados sugieren que los migrantes altamente calificados que trabajan en la academia experimentaron/han sido testigos de discriminación de género, especialmente cuando realizaban actividades de investigación y en el logro de rangos académicos. Por último, los cambios en las percepciones del hogar y de la pertenencia revelaron resultados similares a los previstos por estudios anteriores, como la pertenencia múltiple, el sentimiento de pertenencia asociado al país de origen/a Bruselas, la de-pertenencia y la transculturalidad. Aunque la investigación del Capítulo V presenta limitaciones para extrapolar sus resultados debido al bajo número de encuestados, una implicación relevante de la investigación es que demuestra que las disparidades de género continúan existiendo incluso en una institución educativa de alto nivel, donde se supone que el nivel de conciencia sobre estos temas es elevado.

Teniendo esto en cuenta, la investigación del Capítulo V constituye un testimonio para que los responsables de la formulación de políticas tomen más medidas para perseguir la igualdad de género.

La última parte del Capítulo V propone medidas para reforzar la idea de que la migración y la cultura son medios importantes para lograr el desarrollo sostenible. Se argumenta que las políticas de desarrollo deben basarse en el papel fundamental de la migración en la creación de estrategias de desarrollo sólidas que maximicen los beneficios para todos. Asimismo, las medidas del último capítulo aportan argumentos a favor de un nuevo paradigma, en el que la cultura se define como una base necesaria para lograr el desarrollo sostenible. La última parte del Capítulo V propone medidas para lograr metas y objetivos específicos dentro de la Agenda 2030 de la ONU, señalando dos necesidades imperativas: la de crear instituciones regionales/internacionales para abordar los problemas migratorios, y la de reformar las políticas que se ocupan de la vida social y participación para generar puentes fuertes entre las comunidades.

Para concluir, la tesis tuvo como objetivo estudiar el campo de la socio-economía de la migración, con un enfoque en la evolución de este campo y el estudio de los impulsores de la migración. Los resultados mencionados anteriormente demostraron que este campo está evolucionando rápidamente, pero aún mantiene un énfasis en los determinantes económicos de la migración. En este sentido, es necesario explorar otros factores que pueden influir significativamente en el proceso de migración, por ejemplo, los culturales y tecnológicos. La toma de conciencia de que la migración está determinada por muchos otros factores puede motivar a los investigadores a esforzarse más en examinar estas cuestiones para crear una imagen más amplia de este campo. Además, una comprensión profunda de los factores impulsores de la migración puede proporcionar una buena guía para crear enfoques de desarrollo bien fundamentados. Del enfoque cultural pueden derivarse algunas recomendaciones, como facilitar la posesión de múltiples nacionalidades, la exploración del simbolismo cultural, de los bienes culturales y el patrimonio, la eliminación de criterios étnicos o religiosos de los requisitos para obtener residencia permanente y nacionalidad, etc. Estas medidas, junto con otras disposiciones destinadas a lograr la igualdad de género, como las disposiciones gubernamentales sobre el cuidado de los niños, las políticas que ayudan a mujeres y hombres a combinar el trabajo con las responsabilidades de cuidado familiar y otras que tienen como objetivo el desarrollo de las TIC y la digitalización, son algunos pasos esenciales para instrumentalizar la migración y la cultura para crear estrategias adecuadas de desarrollo sostenible.

Appendix E

List of publications

- Iuliana Mihai & Isabel Novo-Corti (2020) A new insight into the methodology of cultural economics, Applied Economics Letters, DOI: 10.1080/13504851.2020.1795064.

- Mihai I., Novo-Corti I. (2020) Influence of Culture and Migration in Reducing Poverty and Inequality. In: Leal Filho W., Azul A., Brandli L., Lange Salvia A., Özuyar P., Wall T. (eds) No Poverty. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-69625-6_55-1.

- Iuliana Mihai; Isabel Novo Corti. Cultural Distance and Migration Patterns in the EU: The Romanian Case. European Research Studies Journal. XXIII - 3, pp. 410 - 424. https://www.ersj.eu/journal/1646.

- Iuliana Mihai; Isabel Novo Corti. Human movements: immigrants and asylum seekers. Two sides of the same coin. The Central European Review of Economics and Management. 3 - 2, pp. 63 - 87. 2019. https://mail.wsb.wroclaw.pl/index.php/WSBRJ/article/view/755.

- Adrian Bodea; Iuliana Mihai. Descentralización y capital social:¿ hay una contrariedad entre las simpatías nacionales y regionales?. en libro: Yakovlev, P. P., Ermoleva, E. G., Gutiérrez, F. A. E., Andrés, A. S., Belova, E. D., Gritsenko, I. A., & Zenina, M. A. (2018). España y Rusia: políticas económicas y sociales. Instituto de Latinoamérica Academia de Ciencias de Rusia, Centro de Estudios Ibéricos. 338,339, pp. 62 - 77. M. A., 2018.

List of publications in review

- Iuliana Mihai; Isabel Novo Corti. A bibliometric analysis on the topic of the economics of migration. Quality & Quantity.

- Iuliana Mihai; Isabel Novo Corti. An exploratory analysis of the interactions between the determinants of migratory flows. Papers in Regional Science.

Conferences and seminars

- Iuliana Mihai; Isabel Novo Corti (2020, December 3-4). An exploratory analysis of the interactions between the determinants of migratory flows. IX International Conference on Economic Development and Social Sustainability (EDaSS). University of A Coruña, Spain. https://www.edass.org/.

- Iuliana Mihai; Isabel Novo Corti. (2020, September 24-25). The economics of migration and national cultural distance. XXI Conference on International Economics. The Spanish Association of International Economics and Finance (AEEFI), Associations and Groups. Toledo. Spain.

- Isabel Novo Corti. Iuliana Mihai. (2019, November 20-22). A new method to study the economics of migration. IV Iberoamerican Socioeconomic Meeting (IV RISE - SASE). National University of Costa Rica and The Society for the Advancement of Socio-economics. Heredia. Costa Rica.

- Iuliana Mihai; Isabel Novo Corti. (2019, November 7-8). Inequality and migration: an empirical analysis. VIII International Conference on Economic Development and Social Sustainability (EDaSS). Castellón de la Plana. Spain.

- Iuliana Mihai; Isabel Novo Corti. (2019, September 27). Inequality and migration: a theoretical perspective. The Multidimensional Nature of Inequality International Conference (II Edition): The impact of social, legal, and economic innovations. Group on Interdisciplinary Inequality Analysis and EDaSS. A Coruna. Spain.

- Iuliana Mihai; Isabel Novo Corti. (2019, Mayo 30-31). The role of culture and language in migration decisions. The European Union case. 14th Economic Policy International Conference. The Autonomous University of Barcelona. Barcelona. Spain.

- Isabel Novo Corti. Iuliana Mihai. (2019, April 11-12). Proximidad cultural y padrones migratorias en la Unión Europea. El caso Rumano. IX Conference on Research and Intervention in Human Resources. Porto Accounting and Business School, University Research Institute. Porto. Portugal.

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Honors and awards

- Best paper award for the paper entitled “Proximidad cultural y padrones migratorias en la Unión Europea. El caso rumano” – Porto Accounting and Business School (12/04/2019).

- Grant award for pre-doctoral studies – Regional Government of Galicia (01/11/2018-present).