

Africa. Migrations Between Perceptions and Data Production in the Long Run

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ABSTRACT

Africa is a vast continent with more than a billion inhabitants in 54 countries and highly variegated political, economic, climatic and social conditions. Human mobility within a continent that has been the cradle of various cultures dates to prehistoric times. By the mid-21st century, Africa's population will reach two billion and account for almost a quarter of the planet's inhabitants. The continent will also continue to stand out for the low average age of the population (currently 19 years). Urbanization is increasing, with between 40% and 70% of the population living in cities, depending on the context, while the lack of comparable growth in economic and social resources is leading to a worsening of living conditions, with inevitable repercussions on already intense migratory flows. Forced or voluntary migration is, first of all, internal to the continent. But what are the reasons for emigration? Of the legacies that weigh on the history and present of Africa, the slave trade and colonialism are among the heaviest. This paper reviews the literature on the drivers of African migration, focusing particularly on African perceptions of Europe, and discusses the state of the art in the production of data on migration and its usability in the light of current conceptual and methodological issues.

1. Introduction

The history of Africa, and now of African migratory flows, has almost always been considered from the European point of view. Not until the decolonization of the 1960s, in which Africa was one

of the main protagonists, did some African scholars began to describe the complex events of an equally composite continent from a different perspective. The complexity stems above all from Africa's geo-anthropological heterogeneity. In fact, apart from the geological there is not a single unitary element in the whole continent. There are many climates (ranging from the Mediterranean climate of the Maghreb coasts to the equatorial wetlands, passing through the aridity of the Saharan belt and a whole series of microclimates) and a myriad of ethnic groups (Tuareg, Pygmies, Masai, Bushmen, Zulu, Dogon, Peul, etc.), not to mention the countless state realities that have developed over the centuries.

With decolonization, a long and articulated debate began on the need for studies that escaped the traditional Eurocentric historiography. The work of some African scholars, such as the historian Burkinabè Joseph Ki-Zerbo, fits into this perspective.¹ As a member of the UNESCO Council he helped draft the General History of Africa, a work in eight volumes that proposed the first comprehensive history of the continent, written mainly by African scholars. The idea for the work was launched by UNESCO in 1964 "in order to remedy the general ignorance about the history of Africa."² The drafting of the eight volumes, now translated into thirteen languages, took over thirty years and was only completed in 1999. In essence, the volumes represented a "historiographical decolonization" that questioned the methodologies and even the sources used previously (for the most part, European colonial archives) and that succeeded in restoring dignity to the pre-colonial past (Betts 2007, p. 7; Rothermund 2000, p. 17). This approach found the favor of authoritative European scholars, in particular the Annales school with the "nouvelle histoire" pioneered by Fernand Braudel (Braudel 2017; Wallerstein 1980).

¹ Burkinabè Joseph Ki-Zerbo (Toma, 21 June 1922 - Ouagadougou, 4 December 2006) was a Burkinabè politician, historian and man of action, the founder of Burkina Fasso's largest opposition party.

² (<https://en.unesco.org/general-history-africa#:~:text=In%201964%2C%20UNESCO%20launched%20the,and%20promoting%20an%20African%20perspective>).

As to human mobility, in a continent that has been cradle to a number of cultures, migration obviously dates to prehistoric times. By the middle of the 21st century Africans will number two billion, accounting for almost a quarter of the world's population; and they will continue to stand out for their low average age (currently 19 years). Urbanization is increasing, and already between 40% and 70% of the African population, depending on context, live in cities. Given the lack of a comparable increase in economic and social resources, living conditions are deteriorating, with inevitable repercussions on migratory flows, which are already intense.

These migrations, whether forced or voluntary, are, first of all, internal to the continent. But what are the reasons why people emigrate? Of the legacies that weigh on Africa's history and present, the slave trade and colonialism are among the heaviest. This paper will review and discuss the literature on African migration, focusing on Africans' perceptions of Europe and considering the state of the art in the production of data on migration and its usability in the light of current conceptual and methodological problems.

The rest of this paper is divided into five sections: on migratory flows from prehistoric times and forced migration; on internal and international migration within Africa; on lines of research into migration in Africa; on data collection about migration in Africa; on the literature on Africans' perceptions of Europe; and the conclusions.

2. Migratory flows from prehistoric times and forced migrations

Human mobility, within a continent that has been the cradle of various cultures, obviously dates back to the prehistoric age. Contact with other peoples has been documented since Phoenician, Greek and Roman times. The first documented experiences of forced migration date to 1,000 CE at the hands of the Arab conquerors, who progressively pushed inland from northern Africa. Significant migratory flows of the Bantu populations in central and southern

Africa over a very long period of time are documented historically (United Nations, 2015).

It was the modern age, in the 15th century, that saw the first European explorations and geographical “discoveries”. Above all Portugal and Spain (intent on breaking the Maritime Republics’ monopoly on the spice trade with the Arab world) paved the way for a new discovery of Africa (Elliott 1981; MacAlister 1985; Pagden 1995). The Portuguese in particular, later joined by the British and the Dutch, created a thriving market in precious metals, refined raw materials, and also slaves. The slave trade (which reached its sad apogee in the nineteenth century) had been present in Africa since the Arab conquest, so the European explorers followed a pattern that had already been traced out well before them, in which local slaveholders had strengthened the bonds and mechanisms that had built up over the centuries. Through geographical explorations, of which forced migrations and the slave trade were the unhappy corollary, Africa was “discovered,” a development that would obviously have a profound impact on the future of the entire continent.

The propulsive factors in these explorations by some European absolute monarchies were first of all the general growth of population and some political-economic events, such as the union of the Kingdoms of Aragon and Castile to form the Spanish monarchy. At this time the search for a “passage to the South” towards the Indies shifted the center of gravity of trade flows from the Mediterranean to Africa, Asia and later the Americas.

In the second half of the 15th century, Portugal assumed a leading role, and by century’s end the Portuguese explorer Vasco da Gama had circumnavigated continent, sailing back up the African coast to Malindi (in present-day Kenya) and then reaching Calicut (in India). The Portuguese were soon followed by the British and the Dutch, who took possession of various territories along the African coast. As noted, the slave trade had flourished since the Arab conquest. The Arab commercial hegemony, and consequent control of human trafficking, affected not only the trans-Saharan routes but even the innermost areas of central Africa, penetrating the Great Lakes region

(Manning 1990; Morgan 2000; Inikori 2000; Nunn 2008, pp. 139-176; Nunn 2010, pp. 142-184; Nunn and Wantchekon 2011, pp. 3221-3252). The trade flourished in eastern Africa as well, in particular on Zanzibar, where the Omani kingdom collected slaves in transit and from which the main ports of the coast could be controlled. Developed in the wake of the Arab trading route, the European route was particularly active on the Atlantic side, satisfying the demand for labor in the mines and plantations of the American continents. Although less extensive chronologically, the Atlantic slave trade proved to be more devastating in terms of human costs. It was only after Britain's loss of its colonies on American soil that the ban on the slave trade and slavery became possible, in contemporary times, while the cessation of racial hostility towards blacks (the sad and sometimes dramatic epilogue to the slave traffic) would have to wait until the twentieth century (Morgan 2000).

From the colonial era to the migratory flows of the contemporary globalized world, from the nineteenth through the twentieth century, the colonial experience of various European countries – France, Britain, Germany, Spain, Belgium, even Italy – created deep bonds with Africa that have persisted to this day: just think of the North African component of the French population.

The decisions of the European powers at the Berlin Conference (also known as the “Conference on Congo”) in the mid-1880s sanctioned, *de jure*, a division of control over the areas of the African continent that had already been achieved, *de facto*, in the course of the century.³ The United Kingdom and France in particular, which

³ Only after centuries of almost exclusively coastal settlements did the European powers decide that the time was ripe for them to drive deeper into Africa. Before 1875, with the partial exception of southern Africa, disputed between Boer settlers and the British authorities, the French and the British had settled permanently only in some limited areas. The “scramble for Africa” (as it was called by an article in the *Times* in 1884) in the last quarter of the nineteenth century was the result of intense nationalistic competition between the European powers. The Berlin Conference of 1884-85, convened to resolve the delicate question of the interests at stake in the Congo River basin, was decisive in defining the principles that would guide the powers in taking possession of the colonial territories (Betts 1986, pp. 106-107; Reinhard 2002, pp. 248-249; Carbone

at the beginning of the nineteenth century had begun to clash over Egypt, exerted considerable influence in the areas richest in natural resources. They were followed by other European countries, including the newly unified Italy (which was active especially in eastern Africa, with a first attempted conquest at the end of the nineteenth century, and in Libya at the beginning of the twentieth).

After the Second World War, Africa initiated a new chapter in its history, setting out on the search, in many ways still ongoing, for its own path to emancipation, autonomy and democracy.

With the failure of the pan-African ideal, which was held together only by anti-colonialism, decolonization was dominated above all by regional separatisms.⁴ It should be noted, however, that despite having gained political independence from the old European colonial powers, during a good part of the Cold War era most of the new African states gravitated within the economic and strategic orbit of either the United States or the Soviet Union, the world's two superpowers (Berend 2006; Bellucci 2006; Buttino, Ercolessi, Triulzi, 2000; Herbst, 2000; Pase 2011).

Given the complexity of the African continent, now that nearly three decades have passed since the fall of the Berlin Wall one cannot fail to be struck by the emergence of major new protagonists, including in terms of demographics and human mobility (Ilife 2007; Strangio 2018). Think of Nigeria (Africa's most populous state), South Africa (and its attractive role for migration from neighboring countries), or the intense commercial and diplomatic exchanges between North Africa and the European Union (as well as migratory flows from the southern to the northern shore of the Mediterranean).

Indeed, it was precisely in the area of human mobility, motivated chiefly (but not exclusively) by the search for work, that the African continent continued to have a significant impact on migration in the

2005, pp. 22-23; Calchi Novati and Valsecchi 2005, p. 182; Strangio 2011, pp. 100-103; Strangio 2017, pp. 51-53).

⁴ Pan-Africanism dates back to the fifteenth century, when some Caribbean writers began to talk about the common origins and conditions of blacks on both sides of the Atlantic (Betts 2007, pp. 66-67).

second half of the twentieth century (Legrain, 2020). To understand this involvement, one must refer not only to geographic proximity but to the relationship between demography and development and its impact on migratory flows, and realizing that poverty cannot be seen as the sole cause of the exodus. In 2050, Africans will account for nearly a quarter of the world population, while the European Union will drop to 7%, and with a radically different composition by age groups that denotes an unprecedented demographic transition (McKinsey Global Institute, 2016). In Africa, on the other hand, between now and 2050 the population will grow by 74% (in Nigeria, for instance, currently with about 150 million inhabitants) and will more than double in a number of countries (Ethiopia, Uganda, and Democratic Republic of Congo to name a few) (United Nations, 2017). At the same time, there will be progressive urbanization but no corresponding increase in social and economic resources. Only North Africa is close to the ideal average income threshold of \$10,000 a year, while sub-Saharan Africa does not even reach the subsistence level of \$1,000 (McKinsey Global Institute, 2016; African Development Bank, 2017).

3. Internal and extra-continental migration in Africa

In the teeth of the bulk of European public opinion, the largest part of African migratory flows continues to be internal to the continent, in particular from rural to urban areas. Flahaux and De Haas (2016) provide a detailed analysis of migration stocks and flows both within Africa and from Africa to the rest of the world. Their findings confirm that most African migrants move within the continent. They found that in the period 1960-2000 the total stock of migration from Africa to the rest of world and within Africa increased in absolute terms. Examining instead emigration intensity⁵ in the same period, they found a decrease in intra-African and an increase in

⁵ Defined as number of emigrants from a country divided by the population born there.

extra-continental emigration (although the latter remains much lower than the former). The decreased intensity of intra-African emigration is mainly due to lesser mobility in East Africa; emigration intensity has also decreased in Southern, Central and North Africa, but at a slower pace, while in West Africa it has remained stable. The increase of emigration to the rest of world is due mainly to mobility from the countries of North Africa. The authors attribute the decrease in intra-African mobility to decolonization, as the subsequent emergence of rivalries between the newly formed states may have heightened the barriers to intra-continental movement. In West Africa mobility was not impeded, because for the most part the area has smaller countries than the rest of Africa, both in population and in surface area. The geographical and demographical configuration of those countries may facilitate emigration. Another factor is the visa-free movement among the countries of the Economic Community of West African States (ECOWAS), together with the numerous ethnic groups of the region whose presence straddles national borders, facilitating trans-national movement.

Within Africa, as in the rest of the world, migration is regionalized (Wihtol de Wenden 2016). It is concentrated in some countries or clusters of countries, such as coastal West Africa and Southern Africa, Djibouti, Gabon (from West and Central Africa) and Libya (from neighboring countries). In 2019, there were around 40 million Africans living outside their country of origin (14.4 % of the total stock of international migrants worldwide); 53% of these are living in another African country, 26% in Europe and 7.7% in North America. In 2010 the number of international migrants from Africa was around 30 million, 49% living in another African country, 30% in Europe and 7% in North America. In 1990 African emigrants had totaled 20 million (13% of all international migrants worldwide), 65% in Africa, 23% in Europe and 3% in North America (UN 2019).

As far as migration flows within the continent are concerned, the most popular routes are from the Center towards the South, especially South Africa, and from the sub-Saharan area to the Maghreb, in particular Algeria and Libya (where it is estimated that

the number of immigrants is about half the number now residing in Italy, and with considerable numbers of refugees and displaced persons). Other less traveled routes, but still significant, include the Somali exodus (mostly people fleeing war) from the Horn of Africa to the East, across the Gulf of Aden towards Yemen. As far as extra-continental flows are concerned, Flahaux and De Haas (2016) provide new evidence of their diversification especially to the US and Canada, in particular from West Africa. There are also new flows from Southern African countries to Oceania. Migration to Europe is very popular in North and West Africa, in flows that are linked to the former colonial ties. Only a minority of African economic migrants, and also of political asylum seekers, have the European continent as their destination.

While the routes of illegal immigration from Africa to Europe are constantly evolving, owing in part to the restrictions imposed by the countries of the Mediterranean basin, in recent years the most traveled routes have been the Western African, the Central Mediterranean, and the Eastern African. The Western African route from the Atlantic coast to the Canaries takes migrants from Senegal, Gambia, Guinea, Liberia, and Ivory Coast via Mali to Algeria or Morocco, in order to reach the Western Mediterranean route onward to the enclaves of Ceuta and Melilla, or to the coasts of Andalusia or the Balearics. The Central Mediterranean route, from Tunisia, Libya or Egypt to Malta and Sicily (via Lampedusa or Pantelleria) is used by migrants from Senegal, Gambia, Guinea, Liberia, and Ivory Coast transiting via Niger and Libya. The Eastern African route starts from the Horn of Africa (Eritrea, Ethiopia, and Somalia) and feeds into the Central Mediterranean route. More recently, Greece and Sardinia too have proved to be functional landfalls to reach European soil. Sardinia, in particular, began in 2006 to register, with a certain frequency, landings coming mostly from the Algerian coasts of Sidi Salem. In the span of just over twenty years, the often desperate attempts to reach Europe have transformed the Mediterranean basin and the nearby Atlantic (near the Canary Islands) into a watery mass grave.

4. Research paths

Notwithstanding numerous studies of migration within and outside of Africa, of the routes traveled and the causal factors and consequences of migrations, there remain gaps in our knowledge of African migration and, in particular, migration between Africa and Europe.

First of all, there is still a lack of quantitative data on the real magnitude of the phenomenon, the trajectories and axes of the migration flows. Although the main international organizations actively collect and disseminate information and data regarding African population and movements, the particular political, social and economic conditions of some countries make it difficult to collect and process precise data on departures and arrivals. Statistics on African migrants are produced more frequently by the destination countries, and such a source, while necessary and relevant, obviously offers only a fragmentary picture of the phenomenon. And owing in part to this lack, migration from sub-Saharan Africa to Europe is not widely understood (Beauchemin 2018) and empirical research has been rather scanty (De Haas 2008). As noted above, many researchers have sought to bridge this gap by exploiting big data drawn from the social networks or mobile devices. In a place like Africa, where conducting censuses and surveys can be more complicated than elsewhere, the availability and the use of such data has become crucial.

In addition to quantitative data and information on the size and directions of migratory flows, it is increasingly necessary to develop and improve surveys and qualitative studies to garner information on the causes of the contemporary migration from Africa to Europe. Scholars have regularly sought out the particular factors explaining migratory movements, especially those from the economically weaker to the economically stronger countries. Different theories have been elaborated to illustrate and analyze the factors and determinants of migration and applied to explain the movements of African people. In general, over time, emigration has reflected a variety of determinants, such as colonial roots, wars, climate difficul-

ties, and population increase (Kohnert 2007). Yet beyond these “push” factors, there are also important “pull” factors in the migration. Yet the push-pull model itself has been questioned, despite its undeniable importance for understanding the causal factors in migrations (De Haas 2008). Some studies (e.g. Van Hear et al. 2018, who analyzed the drivers of Afghani and Somali emigration) have pointed out the importance of established practices of migration and cultural roots, supplemented by other, contingent push and pull factors. Further, studies have brought out the role of individual motivations, which are increasingly important in the decision to emigrate and the choice of destination. Qualitative studies on migrants or potential migrants to Europe in recent years have shown that personal motivations, networks of acquaintances, and also perceptions and narratives relating to migration have a major influence on individuals’ preferences concerning emigration and certain destination countries. Moreover, recent research projects have revealed changing ideas and perceptions about Europe and a shift in the pull factors, in connection with a positive image of European countries. Although on the whole the view of Europe remains generally positive, thanks to continuous movements of people between the two continents perceptions are now certainly more realistic, less illusory, than in the past. In an increasingly globalized world, where information exchange is faster and more efficient, where a smartphone lets you see what is happening continents apart, it is important to understand the migrants’ visions and how they affect the decision to migrate. While in some cases their ideas may be closer to reality, in other cases the “apparent” reality of the social media may lead to inaccurate ideas about Europe and false hopes for migration.

A more comprehensive approach will also be helpful to inquire further into other aspects of migration between Africa and Europe, such as return and circular flows. Although some returns home can be seen as simple defeat, in other cases they may depend on the original motivations, in which emigration may be conceived as a temporary, transitory phase. Specific inquiries into the drivers of Africa-Europe migration can explore this issue more deeply.

Immigration from Africa is a recurrent topic of public discussion in Europe, but knowledge of its mechanisms, dynamics and drivers is scanty. The result, often, is policy measures that fail to attain their objectives (Beauchemin 2018). European media tend to portray African migrants exclusively as poor people fleeing poverty, war or natural disaster, but this is only part of a larger picture (Beauchemin 2018; De Haas 2008). The interrelation between socio-economic development and migration has often been neglected in the public debate, but it actually constitutes a profound explanation for some recent migration from Africa to the West, including Europe (Awumbila 2017).

As a decade-old report noted, “there is an urgent need for detailed empirical studies combining qualitative and quantitative methodologies that can throw a more informed light upon the life and migration histories, motivations, perceptions” of African migrants in Europe (De Haas 2008, p. 45).

5. Data production in the sending countries: a focus on Africa

The production of data on international migration is problematic both in the sending and in the receiving countries. The main sources of statistics in Africa as elsewhere are population censuses, sample surveys, and administrative records. As Fargues (2020) observes, quantitative knowledge on migration is still scanty in Africa. There is very little information on levels, trends and patterns of migration in Africa. Data collection is far from homogenous, some countries being “data rich” and others “data poor.” This depends on such factors as differences in national statistical systems, the relative importance of migrations politically, and whether or not the country is a source of emigration, because measuring migration is difficult in countries that are not destinations. Because of the lack of migration statistics from traditional data sources in Africa, many migration scholars, international, intergovernmental and governmental organizations have recently focused on innovative data collection,

through big data. Thus in the last ten years we have witnessed a proliferation of studies based on big data, drawn from mobile phones and the Internet. Such innovative sources cover several aspects of internal and inter-continental migration, such as circular migration, transnational networks and remittances.

As mentioned above, the principal sources of data on the international stock of migrants are population censuses. They tally the number of foreign citizens in a country and capture information on people's places of residence at a specific date, e.g. one or five years before the census. To provide such information, the United Nations (1998) recommends that censuses include questions on country of birth, country of citizenship and, for the foreign-born, year or period of arrival. Some census data can also be exploited to produce rough estimates of international migratory flows for specific periods up to the time of the census. Net migration can also be estimated for a series of successive census pairs, to examine trends over the decades. Censuses may also ask place of residence at some specified time in the past, making it possible to count the international migrants arriving during the period considered and remaining in the country until the census. Using censuses to measure migration has definite advantages: their universal nature ensures better coverage of the migrant population; and their relative uniformity in the wording of questions ensures better data comparability across countries. At the same time, there are also limitations:

- 1) data is not available with sufficient frequency, usually only every ten years;
- 2) censuses can accommodate only a limited number of questions on migration and so cannot provide the detailed information needed for meaningful analysis of causes or consequences;
- 3) they capture only people in the country at the time of the census and thus are unable to provide a complete or detailed characterization of international migratory flows.

The lack of timely data is one of the greatest problems with census data: half the countries of Africa have not conducted a national census in the past ten years. And even where censuses have been re-

cently conducted, the information on international migration is often incomplete, possibly ignoring such aspects as origin and profile.

In the context of scarcity of census data in the African countries, sample surveys may be crucial to collecting timely information. In the framework of household sample surveys, data on international migration may be collected either by focused surveys of international migration in particular or by general household surveys – the Labor Force Survey, the Demographic and Health Survey, and the Living Standards Measurement Study, to name three. Specialized surveys have the advantage of providing a wealth of information compared with other data sources, allowing in-depth analysis of the causes of international migration and its consequences for the persons involved; they also have the flexibility to capture the group of migrants of greatest interest. Among the specialized surveys, multi-site surveys would be ideal for research on international migration, but they are still too few in number compared to the national and international surveys conducted in sending or receiving countries. The need for surveys in both receiving and sending countries has been recognized since the 1970s, and they began to be conducted in the early 1980s with the pioneering work of Douglas Massey and Jorge Duran in Mexico and the US, as part of the Mexican Migration Project. Such surveys present a number of challenges, however.

General household survey data has weaknesses. First of all, the main focus of the surveys is not on migration. Second, in most countries the percentage of international migrants is small, so survey sample size has to be sufficiently large to capture enough migrants for meaningful analysis. Therefore, to get useful data on migration, specialized methods of collection are better, i.e. surveys specifically addressing international migration. To do a sample survey on migration, one must bear in mind the particular purpose of the data collection. Do we want to measure the stocks and/or flows of international migrants? Or is the focus on migrants' socio-demographic characteristics? Are we interested in data on remittances? Are we looking for determinants and/or consequences of migration? Once we have decided what we want to measure, the appropriate tool for data collection will be easier to find.

Among the surveys that supplement the general household survey with specific modules on international migration, let us mention the Demographic and Health Survey (DHS), the Living Standards Measurement Survey (LSMS) and the Multiple Indicator Cluster Survey (MICS). The main problems with these surveys are the rarity of migrants, small sample sizes, and already-long questionnaires. Among the best practices in this area are the labor force surveys: they have large samples, their questionnaires are of only modest length, and they already collect a great volume of basic demographic and economic data (employment status, occupation, income) useful for the analysis of international migration. The Egypt Labor Market Panel Survey (ELMPS) is a good example of such a survey in an African country with a module on migration. It is conducted by the Economic Research Forum with the Central Agency for Public Mobilization and Statistics. Four waves have been conducted over the last two decades: 1998, 2006, 2012, 2018. The microdata is publicly available. This is a panel survey, with panel size of about 10,000 individuals. Its large questionnaire includes a module on mobility and return migration since 2006 and a questionnaire on migration and remittances since 2012. Similar surveys have been conducted in Jordan (2010 and 2016) and Tunisia (2014). These datasets offer the possibility of studying some determinants of migration, but they have relatively few questions on migration (specifically related to labor migration) and they use proxies in order to collect data on respondents and households that have migrated.

Among the surveys in African countries of origin, let us mention the Household International Migration Surveys in the Mediterranean countries (MEDSTAT-MEDHIMS). This regionally coordinated project, initiated in 2012, is intended to conduct regionally comparable surveys addressed to different types of individuals: current migrants, return migrants, non-migrants, immigrants and forced migrants. The surveys also include such specific topics as migration trends, drivers, intentions, consequences, policies, and networks, circular migration, etc.

MED-HIMS surveys have already been conducted in Egypt

(2013), Jordan (2014), Morocco (pre-test in 2013 and the main survey ongoing since 2018), and will be launched in Tunisia, Lebanon, Algeria and Palestine (Eurostat 2020). The surveys consist in two questionnaires: the MED-HIMS standard surveys, with large sample sizes and conducted every 5-7 years, allow comparisons over time; and the MED-HIMS light surveys, which collect information on key migration indicators, are conducted between the rounds of the standard surveys, with smaller samples. These surveys have many strengths, such as broad questionnaire and scope, common survey and questionnaire design, and the fact of constituting, ideally, a long-term project. However, there have also some shortcomings, such as the shortage of funding for the surveys, the use of proxies for respondents/households that have migrated, and, finally, the fact that datasets are not publicly available.

Among the best practices in multi-site survey data collection are certainly the NIDI “Push-Pull” project, the first sample surveys conducted both in a set of African countries and in two European countries. The migrants of interest to the surveys were those who had left within the previous ten years, which required identifying households with one or more such emigrants. The surveys were conducted in Turkey, Egypt, Morocco, Ghana, and Senegal, and focused on migration directed to Spain and Italy (EC 2000).

More recently, multi-site surveys have been run within the framework of several European Commission projects: the project on Migration between Africa and Europe (MAFE), which was begun in 2005 to collect and analyze innovative data on migration between three sub-Saharan countries (Democratic Republic of Congo, Ghana, Senegal) and six European countries (Belgium, France, Italy, Netherlands, Spain, UK). The data was collected via multi-site, comparative and longitudinal surveys, and various typologies and characteristics of international migration between Africa and Europe are analyzed: return migration, circulation and transnational practices.

More recently the TEMPER Project on Temporary Vs. Permanent Migration has provided a comprehensive assessment of the pros and cons of some recent initiatives for circular migration, as an alterna-

tive to the conventional dichotomy between temporary and permanent migration. TEMPER considers countries in four major sending areas, namely Eastern Europe (Romania, Ukraine), Latin America (Colombia, Argentina), sub-Saharan Africa (DRC, Ghana, Senegal), and North Africa (Morocco); and four destination countries, namely France, Italy, Spain and Britain.

Although the availability of migration statistics from traditional data sources has improved over time, there are still significant shortcomings in quantity, accuracy, timeliness, disaggregation, comparability (over time and across countries), and accessibility, especially for Africa. Therefore, to complement the traditional data sources, in the last decade big data has emerged as an innovative source of information about migration. Internet penetration is lower in Africa than in other continents, but it is increasing quite fast. The overall rate was 39.3% of the population in 2020, as against 25% in sub-Saharan Africa and 60% in North Africa in 2018. African Facebook users numbered over 200 million in 2020, and 1.6 million billion geo-located Tweets originated in the continent in 2015. Two types of big data have been used to measure and analyze migration: call detail records (CDRs) and data originating in the Internet. CDRs are anonymized digital records collected passively by mobile network operators every time a subscriber makes a call. The information comprises the location of the calling and receiving phones (quite precisely in urban areas, relatively less accurately in rural areas). CDRs also specify the time and duration of the call, the calling and receiving numbers, but anonymize caller and receiver. CDRs could help to fill in knowledge gaps in areas where the data from traditional sources is porous, namely internal and temporary or circular migration. For instance, Blumenstock (2012) uses CDRs to estimate internal migration patterns in Rwanda. Eagle et al. (2009) use them for an analysis of the differences in mobility patterns between rural and urban residents.

Studies exploiting big data from Internet-based sources are rapidly becoming more common. Anonymized search query records for certain terms can be used for various purposes, such as estimat-

ing the number of foreign nationals in a country. For example, in an innovative approach Zagheni and Weber (2012) assessed global migration rates by estimating age- and gender-specific migration rates calculated from data extracted from a large anonymized sample of Yahoo emails. The dataset so obtained enables one to track, with a reasonable level of accuracy, the cross-border movements of millions of anonymous email users on a global scale over a period of two years and to estimate short-term mobility levels, international migration rates and changes of residence. Other studies, based on Facebook (Zagheni, Weber, Gummadi 2017; Stewart, Flores, Riffe, Weber, Zagheni 2019), have monitored the stock of international migrants and the cultural assimilation of Mexican immigrants in the US.

Big data sources like social media can also contribute to the analysis of transnational networks and the public discourse on migration in the origin and destination countries. For instance, social media content may be informative about public attitudes toward immigrants and immigration, or the perceptions of migrants and prospective migrants concerning destination countries. Obviously, data of this kind raises issues of quality, in that it is self-provided, and poses problems in processing vast quantities of unstructured information. Yet these analyses are useful to an understanding of the social determinants and the social impact of migration in both sending and receiving countries. For instance, the EU-funded project *Perceptions*⁶ will analyze the role of mainstream and social media in disseminating narratives about and images of Europe, with a series of objectives: to determine which perceptions of Europe held by potential migrants are reflected in social and mainstream media; to inquire into which narratives relating to non-EU migrants' perceptions of Europe are disseminated on mainstream and social media by various stakeholders (policymakers, NGOs and charities, migrant-led organizations, law enforcement agencies); to analyze the structure of the social networks in which these narratives are discussed; to de-

⁶ This project has received funding from the European Union's H2020 Research & Innovation Grant Agreement No. 833870.

fine the role of new technologies (bots, cyber-attacks, and fake accounts, to name a few) in spreading false narratives and influencing the perception of Europe in a certain way. Conversely, the EU research structure SoBigData⁷ has hosted research on European perceptions of the refugee crisis, employing techniques of sentiment analysis to identify positive and negative attitudes towards the refugee crisis in various European countries (Sîrbu et al. 2020).

6. Literature on Africans' perceptions of Europe

Scholars from different disciplines have worked to identify the main determinants of migratory movements, and over the years various theories have been developed. At the individual level, the migrant has often been considered as a true economic agent, able to weigh the risks and potential benefits of migration and thus to choose the destination on the basis of this calculation. At the macro level, the determinants of people's movements have often been posited as consisting in international economic and income differentials (Ferwerda and Gest 2020; Massey et al. 1993). The push-pull model hypothesizes both push factors relating to the country of origin and pull factors relating to the destination. In general, the decision to emigrate and the choice of the destination do not stem from a single cause but are likely to be determined by a variety of factors related to the political and socio-economic conditions of the areas of departure and destination but also by personal motivations, related to living conditions and personal aspirations (McMahon and Sigona 2018; Veronese et al. 2020).

The various models and theories have been applied to the migration flows from the African continent, and studies have been devoted to the drivers of the recent migratory outflows. As for global migrations in general, a number of push and pull factors shaping

⁷ SoBigData.eu receives funding from the Horizon 2020 Research and Innovation Programme under grant agreements Nos. 654024 and 871042.

the size and direction of flows between Africa and Europe have been identified (Ferwerda and Gest 2020). The recent emigration flows have been found to be associated with processes of development, social transformation and rising living standards (Flahaux and De Haas 2016). Giménez-Gómez et al. (2019) find that in addition to economic conditions and specific local factors such as war and civil conflict, political conditions, social structures and migrant networks also play a role in the decision to migrate.

The different reasons for migrating and the choice of destination, in turn, may be mediated by the narratives of other people and the media, or by personal perceptions about the journey or a particular destination country (Fiedler 2018; Ferwerda and Gest 2020). Received ideas about certain countries can encourage emigration and influence the choice of the final destination. Several studies of the fundamental motivations of individuals migrating from African to European countries have highlighted the importance of narratives and perceptions – in particular they have examined the way in which Europe is perceived among migrants or people from various African countries of origin. Scholars have revealed positive or negative perceptions of life in Europe and in some cases discovered significant shifts in these ideas over time. They have observed that the perceptions of European life often originate with the experiences and narrations of relatives and other migrants as well as with information channeled through the media.⁸

In an inquiry into the factors and dynamics of migration based on interviews of stakeholders and migrants arriving in Italy by sea, McMahona and Sigona (2018) found that many (including Africans) have positive perceptions about their European destinations. They interviewed 200 migrants, most from North, West and East Africa. Those who had chosen Europe as their destination from the outset

⁸ Studies of migrants' perceptions of Europe were collected by the H2020 project PERCEPTIONS. The results of this collection are available in the deliverable "Secondary analysis of studies, projects, and narratives" (<https://project.perceptions.eu/about/deliverables/>).

saw Europe as a place offering opportunities for work and study, freedom and security. The authors emphasized that very often these perceptions simply represent hopes for the future, not precise information about specific European countries.

Crawley et al. (2019), interviewing 250 migrants from Syria, Eritrea and Nigeria, found that the choice of destination is mediated by perceptions of a country's being "good" in terms of economic opportunity and freedom. Moreover, migrants' understanding of the destination countries' policies on immigration is mediated by perceptions and ideas, which may indeed count more than the policies actually in place.

Loftsdóttir (2019), in an examination of the ideas about Europe held by undocumented Nigerian migrants living in Brussels, found contradictory perceptions about Europe: they see Europe "as symbol of hope for a better life" but also criticize the European countries' intervention in Africa. While comprehending the humanitarian principles of Europe, they also stress the exploitation of human beings and natural resources by Europeans in Africa. In general, Loftsdóttir found widespread confidence in the possibilities of life in Europe.

De Clerck (2015) examined perceptions of Europe in an empirical investigation of the thesis that migrants from sub-Saharan Africa generally take Europe as their final destination. She argues that the myth of the West, in addition to push factors, has been a significant determinant in leading these migrants towards Europe, but that over time there has also been a steady increase in migratory flows from sub-Saharan Africa to other continents. Colonial ties have lost importance, and better access to information has prompted greater awareness of new, non-European destinations. Qualitative interviews with sub-Saharan African migrants living in Istanbul revealed a variety of perceptions about Europe, no longer seen as a sort of El Dorado but as just one of a set of possible destinations.

Jolivet (2015) explored the impact of the economic crisis of 2008 on perceptions of Europe. She sought to determine whether the crisis and its repercussions on the lives of migrants in Europe had affected the perceptions of emigration and the aspirations of non-migrants

in some high-migration areas of Morocco. This study formed part of the Eumagine project on the role played by perceptions of democracy and human rights in decisions to migrate, in Morocco, Senegal, Turkey and Ukraine. In-depth interviews, 80 of them in Morocco, focused on perceptions about Europe. The interviewees' idea of life in Europe was generally positive, especially compared with Morocco. Europe is often associated with well-being, material prosperity, and social justice and is generally seen as a place where you can lead a good life. The attractive features mentioned include access to education, the conditions for workers, freedom of expression, equality between men and women, and democratic principles. In general, there emerged a vision of Europe as a kind of promised land, but perceptions differed according to country, some seen as stronger and others (the Mediterranean countries) as weaker. The interviews also brought out negative views, however, some migrants describing Europe as a hostile, racist land, a perception mediated by the actual experiences of Moroccan migrants in Europe. Jolivet found that subsequent to the crisis of 2008 some basic ideas about Europe changed, especially the perception of the possibilities for migrants. And this change produced a shift in perceptions of the migration process and in the Moroccans' aspiration to migrate. However, the study also found differences between different areas within Morocco: where economic and employment opportunities are scant, the perceptions of Europe and migration remain positive, but where there has been some improvement in economic conditions more negative or realistic perceptions prevail. That is, the same information was perceived differently depending on the context in which it was received.

Degli Uberti and Riccio (2017), through surveys of returning migrants and potential migrants in Senegal, examined the effect of narratives and images on people who choose to migrate to Europe. The study found that the evolution of migration is closely linked to the changing images both of the migration process as such and of the destination, in this case the European continent. By comparison with a past in which the migrants were more admired and Europe was

seen as a sort of promised land, today the prevailing images of the migrant and Europe appear to be more realistic. The interviewees often displayed a pragmatic view of migration, which was seen as a way to advance in practical working and economic conditions, not a way to radically change one's entire life. Although in some cases Europe is still perceived as an El Dorado, there is also an awareness of a number of critical issues in Europe and in the migration process itself, which more than in the past tends to be associated with voyage by boat.

Prothmann (2018), in a work on the relations between masculinity, social class, risk and migration, highlights a change in the perception of Europe. The study, conducted in Pikine in Senegal, an urban area in the region of Dakar, showed that migration toward the North is perceived as a way of elevating oneself socially and strengthening one's masculine identity. In this context, Europe's reputation appears to have deteriorated in favor of the United States. The study found that this change was determined in particular by the feedback from migrants returning from Europe.

7. Conclusions

There have always been migrations: what changes is the peoples who move and the reasons that push them to change their habitat. Human mobility is a complex phenomenon that needs to be managed at several levels: with policies for development in the migrants' countries of origin, with pre- and post-departure orientation, and with long-term strategies of integration in the countries of arrival.

In this paper we have reviewed the literature on the drivers of African migration, focusing on African perceptions of Europe and also offering an account of the state of the art in the production of data on migration and its usability in the light of current conceptual and methodological issues. As to data collection, we observed that there is still a lack of quantitative knowledge on the phenomenon of migration in Africa. Greater effort is needed both to foster data

collection from traditional sources (censuses, sample surveys, population registers) and to complement these with innovative sources such as big data. To overcome the difficulties in measuring international migration in Africa, the main international organizations are now testing new ways of collecting data from both traditional and innovative sources. The use of big data should be promoted also among African national statistical institutes, but in the awareness that while it is a helpful supplement to the information provided by the traditional sources, big data cannot substitute for the latter. Accordingly, data collection based on the traditional sources needs to be improved substantially.

Our analysis confirms that most African migrants move within Africa, where some regions attract large numbers of immigrants. We have shown that the migration to Europe is part of a series of links between the two continents rooted in the colonial period. The economic and political ties deriving from colonialism, in the past and still today, have undoubtedly helped to direct part of the flows of African emigrants to certain European countries (De Clerck 2015). Apart from these important links, like other inter-continental movements of people, migration from Africa to Europe reflects a number of different causal factors, both micro and macro. The economic and political conditions of the African countries has been an important push factor, but personal motivations, personal desires and aspirations, have also influenced decisions to migrate. And as with other migratory flows, the pull factors present in Europe are crucial in explaining the immigration from Africa. In an increasingly inter-connected world, personal networks and information have emerged as important factors in inter-continental movements, including those between Africa and Europe. Intertwined with all these factors, ideas about and perceptions of the area of destination have weighed heavily in the decision to migrate and in the choice of destination. Recent opinion surveys show us a Europe convinced that we are witnessing an epochal migratory emergency. But the numbers, the actual data, tell of a much more limited phenomenon than public opinion imagines.

The media campaign attacking the persons and organizations involved in the reception of migrants has distorted perceptions of migration, creating a supposed emergency where none exists in fact and merging the themes of reception and inclusion into a single concern. This is why we reiterate the need to develop and optimize new technologies to obtain more and more reliable data so as to work out a common strategy that does not consist merely in “hospitality.” At the same time, several studies have shown changing African perceptions of Europe, which while still described as a good place to live is also viewed in a more disenchanted manner than in the past. European countries are no longer seen only as an El Dorado, and the limits and difficulties of European life are beginning to be recognized by migrants. Meanwhile, the COVID-19 emergency threatens to exacerbate certain delicate problems within the countries of Europe, such as the health of migrants (especially irregular migrants), the overcrowding of reception facilities, the fate of asylum seekers, and job insecurity. At the same time, the emergency will also have an impact on the countries of origin in Africa, highlighting the complex relationship between development and migration. For example, the measures to contain COVID-19 contagion in Europe and the resulting economic contraction are already affecting regular and irregular African migrants. Since the beginning of the pandemic, many African countries have closed their borders and passed measures to curb internal mobility. Although public opinion seems to have welcomed these measures in some states, the decisions represent a sharp break with past tendencies in a continent where more than half of all migration is intra-African and with recent institutional efforts to guarantee the free movement of people in Africa and to institute an African free trade area. It is legitimate to ask whether the COVID-19 emergency is likely to hamper African integration as regards geographical mobility or whether instead it may not stimulate greater regional cooperation.

The European Union has the tools – and the laws – to deal with migration, but it has not yet developed or instituted a long-term strategy for common management of the phenomenon to overcome the

politics of hate fueled by the burgeoning “populist” movements and parties. These policies are not only iniquitous but also, as is increasingly evident, inefficacious. This situation can be remedied in part by the availability of better data and by better data communication.

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References

- ADEPOJU A. (2008), *Migration in sub-saharan Africa*, Nordiska Afrikainstitutet.
- AFRICAN DEVELOPMENT BANK, ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, UNITED NATIONS DEVELOPMENT PROGRAMME (2017), *African Economic Outlook 2017 Report*, Paris, May.
- AWUMBILA M. (2017), “Drivers of migration and urbanization in Africa: Key trends and issues”, in *International Migration*, 7(8).
- BABY-COLLIN V., MOURLANE S., BOUFFIER S. (2021), *Atlas des migrations en Méditerranée. De l’Antique à nos jours*, Arles.
- BEAUCHEMIN C. (ed.). (2018), *Migration between Africa and Europe*, Springer.
- BELLUCCI S. (2006), *Storia delle guerre africane. Dalla fine del colonialismo al neo-liberismo globale*, Rome.
- BEREND I.T. (2006), *An Economic History of Twentieth-Century Europe*, Cambridge.
- BETTS R.F. (1986), *L’alba illusoria L’imperialismo europeo nell’Ottocento*, Bologna.
- (2007), *La decolonizzazione* (Ed. Or. *Decolonization*, London, Routledge, 1998), Bologna.
- BILSBORROW R.E. (2015), *Existing survey programs and need for new survey modules ... on migration*, Presented at UN Expert Group Meet-

- ing on Strengthening the Demographic Evidence Base for the Post-2015 Development Agenda, Population Division, DESA, UN, New York October 5-6.
- BLUMENSTOCK J.E. (2012), "Inferring Patterns of Internal Migration from Mobile Phone Call Records", in *Information Technology for Development*, 18 (2), pp. 107-125.
- BRAUDEL F. (2017), *Il Mediterraneo*, Rome.
- BUTTINO M., ERCOLESSI M.C., TRIULZI A. (2000), *Uomini in armi. Costruzioni etniche e violenza politica*, Naples.
- CALCHI NOVATI G.P., VALSECCHI P. (2005), *Africa: la storia ritrovata. Dalle prime forme politiche alle indipendenze nazionali*, Rome.
- CARBONE G. (2005), *L'Africa. Gli Stati, la Politica, i Confini*, il Mulino, Bologna.
- CRAWLEY H., HAGEN-ZANKER J. (2019), "Deciding where to go: Policies, people and perceptions shaping destination preferences", in *International Migration*, 57(1), pp. 20-35.
- DE CLERCK H.M.L. (2015), "Europe is no longer the only 'El Dorado' for sub-Saharan Africans: the case of contemporary Senegalese migration to Turkey", in *Migration and Development*, 4(2), pp. 272-290.
- DE HAAS H. (2008), *Irregular migration from West Africa to the Maghreb and the European Union: An overview of recent trends*, Vol. 32, Geneva, International Organization for Migration.
- DEGLI UBERTI S., RICCIO B. (2017), "Imagining greener pastures? Shifting perceptions of Europe and mobility in Senegalese society", in *Etnografia e ricerca qualitativa*, 10(3), pp. 339-362.
- EAGLE N., DE MONTJOYE Y., BETTENCOURT L.M.A. (2009), "Community Computing: Comparisons between Rural and Urban Societies Using Mobile Phone Data", in *Computational Science and Engineering*, 4, pp. 144-150, <http://citeseerx.ist.psu.edu/viewdoc/download?rep=rep1&type=pdf&doi=10.1.1.183.1723>.
- ELLIOTT J.H. (1981), *Imperial Spain 1469-1716*, London.
- EUROPEAN COMMUNITIES (2000), *Push and Pull Factors of International Migration A comparative Report*, Office for the Official Publications of European Communities, Luxembourg.

- EUROSTAT (2020), *Households International Migration Surveys in the Mediterranean countries (MED-HIMS)*, Eurostat website <https://ec.europa.eu/eurostat/web/european-neighbourhood-policy/enp-south/med-hims> accessed the 17 November.
- FARGUES PH. (2020), "Migration measurement along the Central Mediterranean Route: sources of data", in *International Organization for Migration. Migration in West and North Africa and across the Mediterranean*, International Organization for Migration, Geneva.
- (2020), "Migration measurement along the Central Mediterranean Route: sources of data", in *International Organization for Migration. Migration in West and North Africa and across the Mediterranean*, International Organization for Migration, Geneva.
- FERWERDA J., GEST J. (2020), "Pull Factors and Migration Preferences: Evidence from the Middle East and North Africa", in *International Migration Review*, 0197918320949825.
- FIEDLER A. (2018), *Migration from Sub-Saharan Africa to Europe: Reasons, sources of information and perception of German engagement* (IFA Edition Culture and Foreign Policy), Stuttgart: IFA, Institut für Auslandsbeziehungen.
- FLAHAUX M.L., DE HAAS H. (2016), "African migration: trends, patterns, drivers", in *Comparative Migration Studies*, 4(1), pp. 1-25.
- GIMÉNEZ-GÓMEZ J. M., WALLE Y. M., ZERGAWU Y.Z. (2019), "Trends in African migration to Europe: Drivers beyond economic motivations", in *Journal of Conflict Resolution*, 63(8), pp. 1797-1831.
- GLOBAL MIGRATION GROUP (2017), *Handbook for Improving the Production and Use of Migration Data for Development*, Global Knowledge Partnership for Migration and Development (KNOMAD), World Bank, Washington, DC, chapter 1, 2, 3.
- HERBST J. (2000), *States and power in Africa*, Princeton.
- ILIFFE J. (2007), *Africans. The History of a continent*, Cambridge.
- INIKORI J.E. (2000), "Africa and the Trans-Atlantic Slave Trade", in *Africa Volume I: African History before 1885*, Toyin Falola, (ed.), Durham, NC.

- JOLIVET D. (2015), "Times of uncertainty in Europe: migration feedback loops in four Moroccan regions", in *The Journal of North African Studies*, 20(4), pp. 553-572.
- JONATHAN BAKER S., BAKER J., AINA T.A., AINA T. (eds.) (1995), *The migration experience in Africa*, Nordic Africa Institute.
- KADIRI J. (2010), *The route to Brain-Drain: "Personal accounts of African students in Sweden"*.
- KOHNERT D. (2007), *African migration to Europe: Obscured responsibilities and common misconceptions*, Giga Working Papers n. 49.
- LEGRAIN P. (2020), *Them and us. How immigrants and locals can thrive together*, Oneworld.
- LOFTSDÓTTIR K. (2019), "'Europe is finished': migrants' lives in Europe's capital at times of crisis", in *Social Identities*, 25(2), pp. 240-253.
- MANNING P. (1990), *Slavery and African Life*, Cambridge, UK.
- MASSEY D.S., ARANGO J., HUGO G., KOUAOUCI A., PELLEGRINO A., TAYLOR J.E. (1993), "Theories of international migration: A review and appraisal", in *Population and Development Review*, pp. 431-466.
- MCALISTER LYLE N. (1985), *Spain and Portugal in the New World, 1492-1700*, Minneapolis.
- MCKINSEY GLOBAL INSTITUTE (2016), *Lions on the move II: Realizing the potential of Africa's economies*, September.
- MCMAHON S., SIGONA N. (2018), "Navigating the Central Mediterranean in a time of 'crisis': Disentangling migration governance and migrant journeys", in *Sociology*, 52(3), pp. 497-514.
- MINTER W. (2011), *African migration, global inequalities, and human rights: Connecting the dots*, Nordiska Afrikainstitutet.
- MORGAN K. (2001), *Slavery, Atlantic Trade and the British Economy, 1660-1800*, Cambridge.
- NUNN N. (2008), "The Long-Term Effects of Africa's Slave Trades", in *Quarterly Journal of Economics*, 123, pp. 139-176.
- (2010), "Shackled to the Past: The Causes and Consequences of Africa's Slave Trades", in J. Diamond, J.A. Robinson (eds.), *Natural Experiments of History*, pp. 142-184, Harvard University Press.

- NUNN N., WANTCHEKON L. (2011), "The Slave Trade and the Origins of Mistrust in Africa", in *American Economic Review*, 101, pp. 3221-3252.
- PAGDEN A. (1995), *Lords of all the World. Ideologies of Empire in Spain, Britain and France c. 1500-c. 1800*, New Haven-London.
- PASE A. (2011), *Linee sulla terra. Confini politici e limiti fondiari in Africa sub-sahariana*, Rome.
- PROTHMANN S. (2018), "Migration, masculinity and social class: Insights from Pikine, Senegal", in *International Migration*, 56(4), pp. 96-108.
- REINHARD W. (2002), *Storia del colonialismo*, Turin.
- ROTHERMUND D. (2000), *Delhi, 15 agosto 1947. La fine del colonialismo* (Ed. Or. *Delhi, 15 august 1947. Das Ende kolonialer Herrschaft*, Munchen, Deutscher Taschenbuch Verlag, 1998), Bologna.
- SÎRBU A., ANDRIENKO G., ANDRIENKO N., BOLDRINI C., CONTI M., GIANNOTTI F., PAPPALARDO L. (2020), "Human migration: the big data perspective", in *International Journal of Data Science and Analytics*, 1-20. <https://doi.org/10.1007/s41060-020-00213-5>.
- STEWART I.R.D., FLORES T.R., WEBER I., ZAGHENI E. (2019), *Rock, Rap, or Reggaeton?: Assessing Mexican immigrants' cultural assimilation using Facebook data*, Proceedings of the 2019 World Wide Web Conference (WWW'19), May 13-17, 2019, San Francisco, CA, USA, ACM, New York, NY, USA, <https://doi.org/10.1145/3308558.3313409>.
- STRANGIO D. (ed.) (2018), *Africa. Storia, Antropologia, Economia, Migrazioni*, Rome.
- (2011), *Da Colonie a Paesi in via di sviluppo. L'evoluzione dei sistemi economici dalla colonizzazione alla decolonizzazione*, Rome.
 - (2017), *Globalizzazione, disuguaglianze, migrazioni. Introduzione alla storia economica contemporanea*, Roma.
- The Mexican Migration Project, <https://mmp.opr.princeton.edu/>.
- The Migrations between Africa and Europe Project MAFE project <https://mafeproject.site.ined.fr/en/> accessed the 17 November 2020.
- The Temporary Vs. Permanent Migration Project TEMPER Project <http://www.temperproject.eu/> accessed the 17 November 2020.

- Thorsen, D. (2008). Labour migration: a child and youth issue. Nordiska Afrikainstitutet.
- UNITED NATIONS (1998), *Recommendations on Statistics of International Migration*, Rev. 1, United Nations, New York, 1998. Sales No. E.98.XVII.14, Para. 32.
- (2015) *Trends in international migrant stock: the 2015 revision*, New York.
 - (2017), *World population prospects 2017*, Washington.
- VAN HEAR N., BAKEWELL O., LONG K. (2018), “Push-pull plus: reconsidering the drivers of migration”, in *Journal of Ethnic and Migration Studies*, 44(6), pp. 927-944.
- VERONESE G., PEPE A., ADDIMANDO L., SALA G., VIGLIARONI M. (2020), “‘It’s paradise there, I saw it on TV’: Psychological wellbeing, migratory motivators, and expectations of return among West African migrants”, in *Nordic Psychology*, 72(1), pp. 33-50.
- WALLERSTEIN IMMANUEL (1980), *Braudel, le “Annales” e la storiografia contemporanea*, Studi Storici, A. 21, N. 1 (Jan. - Mar.), pp. 5-17.
- WIHTOL DE WENDEN C. (2016), *Mondialisation et régionalisation des flux migratoires*, Cahiers des IFRE, no. 2016/3, December, pp. 8-17.
- ZAGHENI E., WEBER I. (2012), *You are where you E-mail: Using E-mail Data to Estimate International Migration Rates*, WebSci ‘12: Proceedings of the 4th Annual ACM Web Science Conference June, pp. 348-351, <https://doi.org/10.1145/2380718.2380764>.
- ZAGHENI E., WEBER I., GUMMADI K. (2017), “Leveraging Facebook’s Advertising Platform to Monitor Stocks of Migrants”, in *Population and Development Review*, 43(6178), October.