

Money Well Spent or Recipe for Discontent: Assessing the Effectivity of Curbing Migration with Official Development Assistance

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Abstract

The Netherlands and also the European Union attempt to influence migration flows into the European Union by disbursing Official Development Assistance. This raises the question whether this is a method that is appropriate to reach this goal. This study investigates whether migration flows from African countries into the European Union can be affected by ODA disbursements by applying a fixed-effects model to data from 54 countries over a time span of 16 years. Moreover, this study will shed additional light on the so-called budgetary constraint hypothesis by also looking at the relationship between inequality and migration. Additionally, this study includes a more detailed analysis than previous studies of the workings of the various ODA sectors. The main outcome of the study is that, with the exception of a few sectors, no effects can be found between ODA and migration. Another outcome is that inequality seems to play a role, but to which extent remains unclear. These results bring in the question whether policies attempting to influence migration flows by disbursing ODA continue to make sense.

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Chapter 1: Introduction

Migration is as old as mankind. In fact, it was not until the invention of agriculture that people no longer needed to migrate in order to survive. Especially since the attacks on September 11th, 2001, countries in the Global North have increasingly securitised migration. This means that migration is increasingly depicted as a risk to the safety of a receiving country (Jaskulowski, 2019; Humphrey, 2013). A consequence of this is that migration has become a topic that can be used by politicians for their own political gain. Perhaps the most well-known examples include the presidential election of Donald J. Trump in 2016, or the withdrawal of the membership of the United Kingdom from the European Union, where one of the driving promises behind the successful campaign was that the United Kingdom would regain control over its borders (Waldinger, 2018; Sampson, 2017).

Also in European politics, migration has become an extremely polarised theme. This polarisation accelerated with the influx of refugees as a result of the civil war in Syria that started in 2011. Migration has become a topic that has dominated politics at the level of the European Union (EU), but also within the EU member states itself.

Various EU member states have taken on different approaches in order to reduce the number of migrants entering their country. In 2015, Hungary chose to close its borders by building a fence along the border with Serbia in order to make it physically impossible to enter the country (BBC, 2015). Austria adopted a similar approach by building a fence along the border with Slovenia, making it one of the first physical barriers between members of the treaty of Schengen since the ratification of the treaty (Süddeutsche Zeitung, 2015). In addition, reports came out recently that spoke of so-called pushbacks in the border region between Turkey, Greece and Bulgaria. These pushbacks mean that migrants are pushed over the border by police or military forces. Not only are these pushbacks illegal, due to migrants being denied the right to apply for asylum, they are also extremely dehumanising with migrants being forced to take off all their clothes (NOS, 2021).

The Netherlands has chosen a different approach. One of the ways in which the Dutch government attempts to prevent irregular migration is by taking away the root causes of migration by disbursing Official Development Assistance (ODA) and by promoting legal pathways to ensure safe and regular migration. Regarding this latter point, it is true that at a global level, an increase in visa-free mobility has been observed. However, this abolishment of travel restrictions does not apply to all world citizens equally. Especially people from African countries still experience large restrictions regarding travel visa (Mau et. al., 2015). Regarding disbursements of ODA, it is unclear to what extent this is a useful approach. The assumption underpinning this policy of reducing migration via ODA is that there is a relationship between ODA and migration. This is an assumption worth investigating. To do so, it is useful to understand *how* ODA is used to reach these policy goals. The Netherlands deploys ODA in several ways, which are further explained in the next section.

ODA to Reduce Migration Directly

According to the current government of the Netherlands, improving the perspective for prospective migrants in their home countries will result in less migration. This can be achieved by improving security and stability and by eradicating poverty (Rijksoverheid, n.d.). The Dutch government attempts to reach these goals by using ODA funding in a number of ways. Firstly, the Dutch government believes that by investing in education and job opportunities, the economic motive to migrate is taken away. Secondly, a security motive to migrate can be taken away by investing in the rule of law and in the security apparatus in fragile countries. It is also for this reason that the current Dutch investments in development aid are mainly disbursed in countries that the Dutch government believes to be fragile. (Ministerie van Buitenlandse Zaken, 2018).

Another way in which the Dutch government uses ODA funding is by using it as a carrot and a stick. The government experiences problems with sending persons back to their country of origin when they do not qualify for a residence permit to stay in the Netherlands. To deport someone to their country of origin, cooperation from this country of origin is required. When these countries of origin refuse to facilitate the deportation, deportation cannot take place. Therefore, the policy of the Dutch government states that ODA funds can be withheld when deportations are not facilitated (Ministerie van Buitenlandse Zaken, 2018). No evidence is available however to either prove or disprove whether this approach is actually carried out.

The Netherlands is not unique with this approach. The European Union has also deployed a mechanism where ODA is used to curb migration (European Parliament, 2019). The approach of the European Union largely takes the same shape as the approach of the Dutch government, which means that ODA is used both as a carrot and a stick. This is explicated in the Partnership Framework with third countries under the European Agenda on Migration of the European Commission (European Commission, 2019). The European Commission (EC) believes that development policies and migration policies should go hand in hand. This means that development policies should help a country of origin to manage its emigration flows. Moreover, the EC believes that migration should play a role in trade deals as well. This is done by incorporating migration cooperation in evaluations to decide on which countries should receive preferential treatment in terms of trade deals (European Commission, 2019).

The approaches described above entail using ODA in a direct manner: a country of origin receives funding or is denied funding based on its capabilities to curb migration within its own territories. ODA is, however, also used in an indirect way to influence migration flows.

ODA to Reduce Migration Indirectly

ODA which is intended to reduce migration does not have to be focused on countries of origin. So-called transit countries are also selected and receive additional assistance. However, not all aid they receive can be gathered under the ODA framework. The partnership between the EU and the G5 Sahel countries, which are Burkina Faso, Mali, Niger, Mauritania and Chad serves as an example of this. Within this partnership, the EU focuses on three areas of support. These areas are political partnerships, development cooperation and support for security (European Commission, 2018). The contents of the support differ slightly per country but for Mali for instance, part of the ODA is earmarked for peacebuilding and state reform. In Niger, part of the ODA funds is spent on strengthening the rule of law. Thus, the EU is investing in migration management by choosing such areas of support. The result of such broad, comprehensive partnerships that aim to address a lot of issues simultaneously is that a blurring occurs between real development aid and migration management (Bøås, 2020). Moreover, the focus on transit countries suggests that the goal is not necessarily to stop irregular migration but rather that migrants do not reach the borders of the EU.

Moral Considerations

Attempting to influence migration flows by using ODA is not uncontroversial. Development aid is generally given to countries which experience relatively high levels of poverty (OECD6, n.d.). By disbursing development aid, a country is given the opportunity to catch up and to grow out of poverty. These money flows however immediately create an unequal power relationship. This asymmetrical power balance becomes visible in two ways.

To start with, ODA is not disbursed unconditionally. It is disbursed to reach certain goals and these goals are not free of value. Take for instance the example of the Netherlands deciding to invest in enhancing the rule of law in fragile countries. Such a decision immediately raises the question of what kind of rule of law is implemented and to what extent it will fit local customs. This question stems from the belief that development aid functions as a tool to keep neo-colonial power relations in place (Hanchey, 2020).

Moreover, by focusing on ODA, the donor country shifts the responsibility for irregular migration to the migrant and the country of origin and risks neglecting to review its own policies. After all, it is up to a host country to determine which legal pathways exist to immigrate into this country. Hence, a country such as the Netherlands could also open up more legal pathways to reduce irregular migration. By shifting responsibility to a country of origin, there is a risk of losing sight of that reality.

To elaborate on that argument a bit further, it is useful to consider alternative options as proposed by several Dutch NGOs. Large NGOs such as Cordaid propose to invest in reducing *forced* migration as opposed to *irregular* migration (van Reisen et. al., 2019). Forced migration consists of all migration in which people are coerced to move. Such factors include conflict but also hunger and the consequences

of climate change. Victims of forced migration do not make a voluntary choice to migrate. Hence, one could argue that the migrant who is forced to migrate might prefer to stay in the country of origin when given the possibility. Providing aid to make that possible could therefore be the preferred option.

Lastly, the European Commission states that all policy areas should work towards a common goal of having a "positive impact on migration". This means that all policy areas should work towards reducing irregular migration. This way, maximum leverage over other countries can be achieved, according to the European Commission (2019). This means that also development aid is included in this broader approach, making it a tool of realpolitik in the most optimistic sense, or a tool to keep neo-colonial structures in place in the most cynical sense.

Approach of the Thesis

This thesis will investigate whether it is useful to instrumentalise ODA in order to reduce migration. Moreover, it will look at the role that inequality in the distribution of access to resources plays. These relationships shall be researched in a quantitative manner and in a number of different ways. The study will focus first on the total amount of bilateral aid disbursed by the EU member states and the European Union in Africa and immigration into the European Union from Africa as a whole.

Moreover, different sectors of ODA will be taken into account. The OECD distinguishes between seven ODA sectors such as social infrastructure & services, economic services & infrastructure and humanitarian aid (OECD5, n.d.). Firstly, an analysis of these seven sectors will be carried but in addition, the provided ODA will be divided into separate categories because different investments may result in differing migration choices, as will be further elaborated upon in chapter two.

The reason for choosing to look at immigration into the European Union as a whole lies in the fact that borders within the EU have lost most of their significance in terms of migration. One of the four freedoms that people in the EU can enjoy is the freedom of persons. The Citizens' Rights Directive enable free movement for all people in the EU (European Parliament, 2004). It must be noted that this freedom is less absolute for non-EU citizens than for EU citizens, but with the discontinuation of border controls, also migrants from outside the European Union enjoy this right to a certain extent. In addition, given that EU institutions disburse development aid as well, immigration into the EU as a whole will be taken into account.

Research Questions

This thesis will attempt to answer two research questions. In the following sections, the reasons for choosing these two questions will be elaborated upon further. The two questions are as follows:

- How does Official Development Assistance provided for by the members of the European Union affect immigration into the European Union from the African continent?

- How does inequality in the distribution of resources affect immigration into the European Union from the African continent?

Scope

This thesis focusses specifically on migration from Africa towards the European Union as a whole and the role of development aid disbursed by EU member states in Africa. There are several reasons for adopting this scope. Firstly, the departure point of this thesis is the Dutch policy on ODA, as the Netherlands believes that ODA should be used to reduce migration (Ministerie van Buitenlandse Zaken, 2018).

Secondly, the Netherlands disburses most of its ODA in Africa. Close to a billion US dollars were disbursed in Africa in 2018 and 2019 (OECD1, n.d.). This accounts for more than 83% of the Dutch ODA budget that is specified by region. It must be noted though that of the total ODA budget, 2,5 billion US dollars were not specified by region. The same trend can be seen amongst other European actors. Also, the institutions of the European Union spend most of its ODA on the African continent (OECD1, n.d.).

Moreover, the African population is the fastest-growing group in Europe (Beauchemin, 2018). As the population on the African continent is also growing rapidly, a thorough understanding specific for this geographic area is necessary if the EU and the EU member states want to implement meaningful policies. For example, predictions show that 2.2 billion people will live in sub-Saharan Africa by the year 2050 while currently, an estimated 1.1 billion people live in sub-Saharan Africa (Suzuki, 2019; World Bank1, n.d.). Therefore, from the viewpoint of EU member states, migration pressure from Africa is expected to increase in the coming decades.

Previous Work on the Topic

This study into the relationship between ODA and migration is not the first of its kind. Previous quantitative studies have been undertaken by Lanati & Thiele (2018) and Berthélemy et. al. (2009), as will be further explained in chapter two. These studies have found contradicting results which feeds the need to further investigate the relationship. This study resembles the study carried out by Lanati & Thiele to some extent, however this analysis differs in three important aspects. First of all, the analysis in this study is more geographically focused, namely on the African continent, whereas Lanati & Thiele (2018) took on a more global approach.

Secondly, this study aims to elaborate on an aspect of the relationship between aid and migration that seems to be taken for granted. Many studies find evidence of a so-called budgetary constraint hypothesis and a bell-shaped curve of migration. These entail that at low levels of GDP (gross domestic product) per capita, migration is low. As GDP per capita increases, so do migration rates. After a certain threshold, migration drops again (Lanati & Thiele, 2018). The reasoning underneath this hypothesis is

that as GDP per capita increases, household budget constraints relax, enabling people to afford the costs of migration. This study, however, will attempt to shed more light on this link by incorporating inequality in the distribution of resources because it remains unclear which groups of the population migrate. It is not necessarily the case that the migrants of a country experiencing economic growth are the same people that experience an increase of their budget. It could also be that the people who do not benefit from the economic growth decide to search for a more prosperous life elsewhere. Looking at the distribution of access to resources will thus help to shed additional light on the budgetary constraint hypothesis.

Thirdly, this study will look at ODA sectors more specifically than Lanati & Thiele (2018). Whereas they have used the broader categories such as economic infrastructure, this study has broken ODA down into the components of economic infrastructure such as energy and transportation & communication. This makes it possible to pinpoint relationships between aid and migration more precisely.

Relevance

The societal relevance of this study stems from the current political and policy choices being made by the Netherlands and other EU member states. ODA has recently become an increasingly popular tool to influence migration flows. This study will shed light on the appropriateness of that policy decision. This is important given the magnitude of both migratory movements and ODA spending. During the time period between 2001 and 2019, close to 6 million people immigrated from African countries into the European Union (Eurostat, 2021; OECD4, n.d.). In the same time period, the EU member states and the EU institutions spent more than USD 630 billion on ODA in Africa (OECD2, n.d.). To maintain support for ODA within donor countries, it is important that money is spent effectively and this study helps to examine the effectiveness of ODA in relation to the set goals.

Additionally, this study hopes to contribute to a discussion on migration that is rooted in facts rather than in emotion. Due to the polarisation of the topic, a substantive (political) debate seems to have become impossible. The debate is often hijacked with dehumanising frames such as a "tsunami of asylum seekers" and "fortune seekers" (Tweede Kamer, n.d.). This study aims to counter such frames and hopes to contribute to a meaningful and respectful debate. This is achieved by deepening the knowledge on migration relationships.

Scientific relevance is found in the ongoing debate on the link between aid and migration. As will become clear in the next chapter, there have been some studies on the link between aid and migration. Nevertheless, the empirical work that has been done on the relationship between aid and migration remains thin and important conclusions reached in other studies seem to be contradicting.

Lastly, this study will help to shed additional light on the role of GDP in relation to migration and will be able to more specifically pinpoint the role of different ODA sectors.

Structure

This thesis will be structured as follows. In the next chapter, a theoretical framework will be presented as well as the hypotheses that are derived from the literature which will be tested in the analyses. This study will be built upon the framework that is presented. The third chapter will elaborate on the methodology used in the empirical part of the study. Chapter four contains the actual results of the analyses and in chapter five, conclusions will be drawn including a discussion on the implications of the results.

Chapter 2: Theoretical Framework

The purpose of this chapter is to provide an overview of relevant concepts surrounding aid and migration. Moreover, it will elaborate on the relevant literature in this study field. This chapter will conclude with three hypotheses, which are derived from the literature.

Concepts

In the following section, the most relevant concepts that are required to gain an understanding of the topic will be elaborated.

Migration

Migration exists in many shapes. It can occur both within one country but people can also migrate across borders. In that case, emigration, or immigration from the perspective of the host country, are more appropriate terms. Nevertheless, in the literature, the term migration generally refers to international migration. For that reason, this thesis will use the same approach.

People migrate for differing reasons, which is important because their motives may decide under which legislative framework they fall, which in turn may impact the decision of whether or not a migrant is allowed to stay in the country of arrival (Council of Europe, n.d.). Moreover, different kinds of migration might respond differently to foreign aid. Even though it was not possible to incorporate this fact in the empirical part of this thesis, it is important to keep this in mind. Therefore, a brief elaboration on this is included below.

As said, migration can have many causes. A decision to migrate is influenced by surrounding factors. It could be the case that a potential migrant makes a cost/benefit analysis of migration in terms of expected income in the country of destination. Therefore, emigration can be a consequence of high unemployment rates (Mihi-Ramírez et. al., 2013) In that case, this person could be seen as an economic migrant (Saghir & Santoro, 2017). Alternatively, it might be the case that a person migrates out of fear for personal security. This fear can be rooted in political unrest in the country, an individual having a sexual identity which is not accepted in the country of origin, famine, climate change, etc. When this happens, this person might be eligible to receive asylum. In these examples, forced migration is a more suitable term, as an element of coercion plays a role there (International Organization for Migration, n.d.).

These different categories matter for several reasons. First of all, it impacts the means of travel of the migrant. This has to do with extraterritorial policy instruments. During the 1980s and the 1990s, countries introduced carrier sanctions. This entails that a person is only allowed to board an airplane when one is in possession of a visa (Czaika et. al., 2018). Therefore, a person who applies for a student visa successfully to study abroad can travel by airplane. This would be an example of regular migration: a person receives a visa based on a legal pathway (Beauchercq et. al., 2019).

Alternatively, people who want to apply for asylum are usually not granted a visa that would allow them to travel by plane. In most instances, it is only possible to apply for asylum once one is on the territory of the destination country. As a result, in the context of migration towards the European Union, asylum seekers are often forced to choose for irregular migration. A consequence of this is that many African migrants who do not have the option of choosing a legal pathway and who are travelling towards Europe are exposed to great threats, such as crossing the deadliest border in the world, the Mediterranean, which caused 33,761 deaths in the period between 2000 and 2017 (Council of Europe, n.d.).

Important to note here is that at a global level, there has been an increase in visa-free mobility. This increased freedom is however only available to certain populations. Especially citizens from African countries do not experience increased opportunities but rather experience more limitations when it comes to mobility (Czaika et. al., 2018).

The distinction between documented (legal) and undocumented (illegal) migrants is important, also in the light of this study. Some portion of the irregular migrants will apply for asylum. From that moment onwards, they are registered in a system and they will appear in migration data. There is however also a group that chooses to remain undocumented. These migrants will stay under the radar of state institutions. As a result, it is impossible to determine the total amount of migrants because this latter group is not included in the statistics and therefore also not in this study.

It is also possible that someone came via a legal pathway at first, but chose to stay beyond the expiration date of the residence permit. In those instances, the migrant changes from a documented migrant to an undocumented migrant. This will slightly affect the stock of migrants in a country, but not the flow of migrants as this person was registered upon first entry of the country. As such, those cases will not influence migration statistics in a significant way.

Development Aid

The disbursement of development aid has a long history. It is provided by many different actors who may have different motives for doing so. In this thesis, the focus will be on development aid that is provided by countries. Countries have different ways to decide on their priorities. Some countries have a law in place which stipulates the different goals the country aims to achieve by using development aid. Other countries don't have a law in place, but merely a (multi-annual) strategy.

This study focuses on Official Development Assistance (ODA). This means that only ODA will be taken into account that fits in the definition of development aid of the Organisation for Economic Co-operation and Development (OECD). The criteria of the OECD help to harmonise the different kinds of aid which increases the measurability. It also sets rules on grants and the softness of loans (OECD, n.d.; Scott, 2015). The OECD defines ODA as "government aid that promotes and specifically targets the economic development and welfare of developing countries" (OECD6, n.d.).

ODA can be split into several sectors. Examples of the sectors that the OECD recognises are social infrastructure, economic infrastructure and production. These sectors can be broken down further into education and water supply as parts of social infrastructure and agriculture, industry and trade for production (OECD, 2019). These sectors are relevant because as Lanati & Thiele (2018) have shown, investing in certain sectors might have different effects on migration. Their results show a relatively large negative relationship between ODA targeted on social infrastructure and services and migration, and a more modest negative relationship between economic infrastructure and migration (Lanati & Thiele, 2018). These different sectors are also incorporated in this study as it provides a more nuanced picture of the relationship between aid and migration.

As already touched upon in the introductory chapter, development aid is not provided unconditionally. Aid is accompanied by goals, norms, values and expectations. This approach to aid is prone to criticism. Already in 1971, Hayter commented on how development aid was used as an instrument to further the interests of Western capitalist countries, although this criticism was mainly focused on how development aid leads to a structural reform of the economy (Ziai, 2009). However, criticism is not restricted to the structure of the economy alone. As Hanchey (2020) explains, development aid can be seen as the continuation of colonial power relations. Developing countries, although legally independent since the end of the colonial era, remain the weaker party in a paternalistic relationship to the donor country (Hanchey, 2020). Goldsmith (2002) states this even more strongly. He argues that colonialism did not end because the colonisers decided to let go of the economic advantages of colonialism, but because they had found an alternative way to reach the same goal. By creating a vicious circle of debt, receiving countries remain dependent on the donor country (Goldsmith, 2002). Although it falls outside of the scope of this study to dive deeper into the issue of neo-colonialism and development aid, it is necessary to remain critical of development interventions and it can therefore be questioned whether the development aid framework is the right framework to achieve these policy goals.

With these conceptions on aid and migration in mind, the following sections elaborate on the academic debates surrounding the topic.

Literature Review

There have been earlier studies that try to determine the effect of aid on migration and those will be discussed in this section. This section commences with a brief description of the most important studies that have analysed the relationship between aid and migration and the academic debate that follows from those studies. Then, an additional academic debate on inequality will be discussed. These discussions result in the formulation of three hypotheses.

Discussion 1: The Effect of Aid on Migration

Berthélemy et. al. (2009) have attempted to find out whether aid and migration are substitutes or complements. They have measured aid in two different manners. First of all, they measured the effect

of total aid on migration. Secondly, they tested for an “attraction” effect. For this, they looked at bilateral aid to a country. Through bilateral aid, the donor country may increase its attractiveness to potential migrants in the recipient country.

Both for total aid and bilateral aid, there is a significant effect on migration (Berthélemy et. al. 2009). For bilateral aid, the effect is roughly twice as strong as for total aid, indicating that the hypothesized attraction effect is actually present. They find that an increase of bilateral aid of 10% will lead to an increased bilateral migration stock of 3%.

Moreover, the study provides evidence of the hump-shaped pattern of migration in the light of income and migration. This pattern entails that at low levels of income, migration will be low. As income increases, migration rates increase as well. This is true until a certain threshold, after which migration drops again. Berthélemy et. al. (2009) find this threshold to be situated around a purchasing power parity of \$7,348 in prices of the year 2000.

A significant, yet understandable shortcoming of the study of Berthélemy et. al. (2009) is that it measures migration in stocks rather than flows. The difference between the two is that migrant stocks refer to the total amount of migrants that live in a country, whereas migrant flows measure the annual inflow. In other words, when using flows, you look at how many migrants enter a given country in a given year. Migrant stocks however capture to the difference between immigration and emigration as you are merely interested in how many immigrants are present in a certain country in a given year. This figure can thus be influenced both by immigration and emigration. The authors recognize this shortcoming as well, but were forced to make this decision due to the unavailability of migration data. Another study that was carried out on this subject was able to overcome this shortcoming. Lanati & Thiele (2018) were able to use flows of migration, which is likely to have had a significant impact on the results.

Unsurprisingly therefore, Lanati & Thiele (2018) come to a different conclusion. Their results show a negative relationship between aggregate aid and emigration. This means that more aid will result in less migration in the long run. This relationship also holds for different incomes, however, the negative effect is slightly stronger for countries with a lower income.

In addition, Murat (2019) has found evidence for a specific kind of migration. Her analysis focused solely on the relationship between asylum migration and aid. She found an U-shaped curve of asylum migration in relation to GDP per capita. This means that for the poorest countries, aid was negatively associated with migration. Her results, based on this specific type of migration, therefore support some of the findings of Lanti & Thiele (201), who also found a negative relationship for aid and migration, although for Lanati & Thiele, the relationship remained negative at all stages of income where Murat (2019) finds a positive effect for higher income countries.

The different results between the studies of Berthélemy et. al. (2009) ,Lanati & Thiele (2018) and Murat (2019) can be partially explained by the different methods the studies apply. Berthélemy et. al. (2009) use migrant stocks as their dependent variable, whereas Lanati & Thiele (2018) and Murat (2019) use migrant flows. Although migrant stocks can be used as a rough measurement for migration, flows can more accurately determine the effect of what we are trying to measure.

At first, one might argue that the discussion is closed with the study of Lanti & Thiele (2018) as their measurements better capture the relationship. However, as the results of Murat (2019) are more in line with those of Berthélemy et. al. (2009), further investigation into the relationship between aid and migration remains necessary.

Discussion 2: The Effect of Sectors of ODA on Migration

Lanati & Thiele (2018) were among the first to examine the relationship between aid and migration more extensively by also incorporating different sectors of ODA. Their main significant effects are found in ODA invested in social infrastructure and project aid. Even though they find significant negative relationships in all sectors, for these two sectors they find the biggest effects. One of the main reasons that Lanati & Thiele (2018) carried out this analysis of ODA split out by sectors is that overall ODA provides a picture that may be too unclear as ODA can consist of many different things and each might have a different working. Nevertheless, they still chose to operate not at the most specific level possible, as ODA can be broken down further. As an example, social infrastructure consists of education and water supply. The production sector consists of agriculture and industry. They do not really provide an explanation as to why they chose to model at this still relatively abstract level but it does mean that it may be worth it to look at a more detailed level to gain a better understanding of the workings of different types of ODA. As such, this study proposes to look at this more detailed level. Despite the relative novelty of this approach, some predictions can still be made based on other effects that have been shown to be present.

Education serves as a good example to elaborate on how this might work out. For years, scholars have been discussing the possibility a so-called brain drain in the nexus between migration and education. This concept implies that educated workers migrate as a result of better prospects outside of their country of origin. Lahiri (2007) shows, specifically for the sub-Saharan countries, that people with tertiary education indeed tend to emigrate more than other people from countries with developing economies. Some important comments have to be made however before extrapolating this evidence to the effect of ODA invested in education on migration. First of all, increased emigration does not necessarily mean increased immigration into the EU. Moreover, this analysis merely focused on the migration of people with tertiary education. It is unclear to what extent ODA invested in education leads to more people enjoying tertiary education. International organisations such as UNESCO and the Open Working Group on Sustainable Development Goals do believe that, in the light of a discussion how ODA should be spent, more attention should be paid to providing more access to tertiary education

(King & Palmer, 2014). Hence, it seems likely that ODA invested in education will lead to more migration.

The opposite is believed to be true for other ODA sector components such as those related to improving local economic opportunities. This includes for instance the components of economic infrastructure and the components of the production sector, with the exception of tourism. A higher quality of infrastructure improves economic opportunities. These arising opportunities however are very locally based. After all, a new road between two cities will mainly open up new business opportunities between these two cities. It is important to note though is that it is unclear what the purpose is of ODA invested in infrastructure. When it is invested in constructing a new road, the reasoning above holds. However, when it is invested in opening a new airport, the relationship might be completely different as this may open up a country or a region to the rest of the world. Empirical work exploring these aspects is thin. There is some evidence however that an improved infrastructure will remove the need to migrate due to increased economic opportunities (OECD, 2000). Hence, the expectation is that migration will decrease when ODA is invested in infrastructure, both due to increased economic opportunities but also because of the locality of such investments. The same expectation and reasoning applies to the production sectors of agriculture and industry.

For tourism, there might be an alternative effect. Santana-Gallego & Paniagua (2020) have investigated the reversed relationship, so whether migrant stocks in a country had an influence on tourism. Their findings were that increased levels of migrant stocks are related positively to tourism in the country of origin, implying that more migrants will result in more tourism. This raises the question whether the reverse could also be true, i.e. whether more tourism will lead to more migration. However, this also leads to the assumption that ODA invested in tourism also leads to more tourism. With the currently available studies however, there is no way of knowing whether this assumption is actually correct. Nevertheless, it seems most appropriate in this case to follow the logic of reversed causation, leading to the expectation that increased levels of ODA invested in tourism will lead to more migration.

Moreover, it seems that Lanati & Thiele (2018) draw some conclusions prematurely, especially regarding the role of GDP, which forms the basis of the next discussion. The conclusion of Lanati & Thiele (2018) that the budgetary constraint hypothesis may play a lesser role seems too simple a conclusion. Therefore, I propose an extension of the budgetary constraint hypothesis which is elaborated upon in the next discussion.

Discussion 3: The Effect of Inequality on Migration

The budgetary constraint hypothesis is often taken for granted. Its existence has indeed been proven, but the exact working remains unexplored. It is thus established that there is an effect of economic growth on migration. This effect entails that at very low levels of GDP per capita, migration will be low. As GDP per capita increases, so do migration rates. The underlying mechanism is presumed to be

as follows: a rising GDP level relaxes the budget constraints that people face. A rising income thus enables people to afford the costs of migration.

This study proposes a slight extension to the budgetary constraint hypothesis. The hypothesis is built around the conclusions drawn from a measurement of GDP per capita. An easy mistake to make is to assume that the wealth of the whole population increases when the GDP per capita increases, because an income change of the national economy is projected as an income change on the level of the individual. Increased wealth is however not necessarily distributed equally amongst the population. It might as well be the case that the increased wealth ends up in the pockets of a small group of people.

This study proposes the idea that migration from countries experiencing economic growth is (partly) driven by inequality. This topic has been studied before by Naval (2017) but he reverses the causal chain. His argument is that migrants send back remittances, causing inequality to decrease. That means that prior to migration, there is indeed a high inequality. Hence, inequality should be taken into account when discussing determinants of migration.

Moreover, it has been shown that there can be a link between ODA and increased inequality (Chao et. al., 2010). Assuming that inequality leads to increased migration, the paradoxical result might be that ODA leads to increased migration through inequality.

The underlying assumption in this debate is that development aid affects GDP per capita. This is an assumption worth investigating because it is so central to the claim Lanati & Thiele (2018) make. Loxley and Sackey (2008) have done exactly that. They have studied the relationship between aid and economic growth in 40 African countries. Their results showed a positive relationship between aid and GDP per capita, which means that more aid leads to more economic growth (Loxley & Sackey, 2008).

The hypothesis that migration might be partially driven by inequality is further strengthened by domestic examples. There is ample evidence of people migrating from rural to urban regions, often within the same country, in search of better circumstances due to inequality between rural areas and urban areas (see for instance Todaro, 1971, Amara et. al., 2019 or Zhu & Luo, 2010). It is therefore worth exploring whether inequality affects migration because it could alter the dominant view on the budgetary constraint hypothesis.

Moreover, an investigation into this relationship can either prove or disprove some of the conclusions that Lanati & Thiele (2018) find. They find that the level of GDP influences the relationship between aid and migration to a small extent. As mentioned earlier as well, they do find that the coefficient for aid changes slightly for richer countries, but the effect of aid on migration remains negative. Following the logic of the budgetary constraint hypothesis, one would expect that ODA relieves budget constraints experienced by prospective migrants, but that does not seem to be the case (Lanati & Thiele, 2018). They therefore conclude that the effect of the budgetary constraint hypothesis is rather limited. I believe

however that this is a conclusion drawn too quickly, as they equate growth in GDP per capita with relaxing budget constraints. Looking at the role of inequality will clarify how the budgetary constraint hypothesis works and will allow reassessment of conclusions that were drawn too quickly.

Hypotheses

As said earlier, the debates that have been elaborated above result in three hypotheses. The first two hypotheses aim to confirm the results of other studies. The third hypothesis contains the extension to the budgetary constraint hypothesis as discussed above. The three hypotheses are as follows:

Hypothesis 1: the relationship between total bilateral ODA and immigration is negative.

Hypothesis 2a: the relationship between ODA invested in education and migration is positive.

Hypothesis 2b: the relationship between ODA invested in tourism and migration is positive

Hypothesis 2c: the relationship between ODA invested in components of economic infrastructure is negative

Hypothesis 2d: the relationship between ODA invested in agriculture and migration is negative

Hypothesis 2e: the relationship between ODA invested in industry and migration is negative.

Hypothesis 3: the more unequal wealth is divided, the higher the migration rates.

Chapter 3: Methods

The aim of this chapter is to elaborate upon the ways that data will be gathered and analysed. This chapter will commence with a discussion of the data structure and the problems that come with this type of structure. Then, the chapter will finish with a discussion of the main variables and the control variables including their operationalisation.

Data structure

Data will be gathered from a period of 19 years. This means that the starting point is the year 2001 and the dataset will run up to and including 2019. The reason for choosing these time points is mainly data availability. Both for migration and development, the quality of reporting has increased strongly after the year 2000. Data will be gathered pertaining to the 54 countries that together form Africa. For some parts of the analysis, a more restricted time period will be used, as will be explained more elaborately below. The dataset consists of panel data. This poses certain problems that will be elaborated upon in the next section.

Problems Encountered in Panel Data

Panel data typically poses one problem: intra-class correlation (Stimson, 1985). This entails that values of Y are often similar within units. To put it in the context of this thesis: suppose that in a given year 3,500 migrants migrate from African country X to the European Union, it is likely that the figure for the following year is relatively similar. This in turn will have an impact on the value of the coefficients following the statistical analysis.

There are typically three ways to solve this issue. Each of those will be elaborated upon here to explain why the chosen path has been chosen.

The first solution to intra-class correlation is a fixed-effects model. This method entails that one includes dummies for each unit. In this case, it would mean that all countries would get a dummy variable. That way, you can account for all the average differences between countries. Y is then modelled as a function of the relevant X-variables but also as a function of the dummy variables. It means that you take out all the variance except for the variance within units. The variance within units are then the changes within units over time. The major downside to this approach is between-variance is removed, and can therefore not be used for estimation. Moreover, because you introduce dummy variables, it is less efficient. On the other hand, this does make it possible to control for all unobserved between-unit confounders, in other words: the variables that you missed. Moreover, it requires fewer assumptions than the alternatives to get unbiased results. Another consequence of applying a fixed-effects model is that it cannot contain multilevel data.

Similar to this method is the first difference model. Instead of taking absolute values for the variables, you take the change within variables over time. To make it clearer: suppose that a given country in year X has 500 emigrants and 750 emigrants in year X+1, with a first difference model, one would take a value of 250 as observation for the year X+1. This method thus entails that you take out the base-level differences between units. This means that, in the light of this thesis, it no longer matters at what plateau immigration rates already are, since it is only the change over time that matters. To put it in more technical terms: you look at how *change* in X explains *change* in Y. A large downside to this is that time constant confounders cannot be accounted for. A major advantage to this approach, though, is that you are able to use OLS regression as an estimation method, which, again, does not require as many assumptions as the next alternative.

A third option to solve the issue of intra-class correlation is by estimating a random effects model. A random effects model can be used to specifically estimate both variance within units and variance between units. One then estimate one coefficient for the effect of X on Y. The variance between units is incorporated in the error term. A major advantage of this method is that it allows you to include time-constant variables as part of the explanation and it enables the possibility to create a multilevel model. Just like with the other approaches however, there are some downsides. The main problem is that you require additional assumptions to be fulfilled to get unbiased results.

Weighing all the pros and cons, the decision was made that a fixed effects model will be applied. The main reason for this is that this study will be focusing on macro variables only. This has to do with the availability of data. For some of the most important variables, it was already challenging to find proper data. This would be even harder for micro-level variables given the African context in which problems are often encountered with data gathering. The fixed effects model is therefore considered to be the most suitable approach to carry out the analysis.

Choice of Model

In the analysis, ordinary least squares (OLS) regressions will be run. OLS estimation allows to find a line that fits the data best by minimizing the differences between the observed datapoints and the line that runs through them (Field, 2009). This will then result in a value for each of the relevant variables, or predictors.

The basic formula of any multiple regression model looks as follows:

$$Y_i = (b_0 + b_1X_i + b_2X_{i2} + \dots + b_nX_n) + \varepsilon_i$$

The predictors that will be incorporated in the model are explained below under the section on variables.

OLS requires a number of assumptions that have to be met. Those assumptions determine the trustworthiness of the results. These are discussed in the next chapter, where they will the dataset will also be tested against these assumptions.

Types of analysis

Two main analyses will be carried out. The first analysis looks at the effect of total bilateral ODA on migration. This means that ODA is not split out per sector but that only the aggregate figure of ODA is considered. In order to gain a more thorough understanding of how ODA affects migration, ODA is split into sectors in a second analysis. This second analysis will consist of two parts. First of all, ODA is split out into broader categories, following the example of Lanati & Thiele (2018). Subsequently, the ODA sectors are broken down into more specific components. This will help to gain the best understanding of how ODA affects migration.

Main Variables and Operationalization

Official Development Assistance

The main independent variable is ODA. ODA will be measured in two ways. First of all, the total amount of aid provided by all EU member states to a given country will be taken into account. This means that all aid disbursed by EU member states is aggregated to come to a total figure for the European Union. ODA will be measured in (millions of) dollars per year at constant prices.

In addition, ODA will be split out into sectors. The OECD recognises different sectors in which ODA spending can be categorised. This is a practice, however, that has only been implemented since 2008. Because of data availability, it is not possible to combine it all into one analysis, which is why an alternative route, with a separate second analysis, is chosen. Moreover, reporting on different sectors is something that has not yet become a standard practice for all EU member states. The quality of reporting is highest among EU member states that also a member of the Development Assistance Committee (DAC) of the OECD. Therefore, this second analysis only incorporates EU member states that are also a member of the DAC. This means that the data from two EU member states, Lithuania and Croatia, were not part of the analysis in addition to some other EU member states who had been taken out for reasons explained further in the chapter.

The OECD recognises a number of broad sectors, such as social infrastructure or economic infrastructure, but these can be broken down into categories like education and transportation & communication. By breaking these sectors further down, effects can be analysed at a more detailed level. However, the data on the components of the ODA sectors is not perfect as there is no data available for each and every component. Therefore, the second analysis will be carried out in two ways. The last part of the analysis, where ODA sectors are divided into the components of ODA sectors, will cover all sectors on which there is data available. That does mean, however, that possibly important

components are not taken into account in this last analysis, but they are part of the analysis using the broader ODA sectors.

The ODA data originates from the OECD (OECD2, n.d.). The OECD has the most comprehensive ODA dataset available. Only data on ODA will be included, meaning that Official Development Finance (ODF) is not taken into account. ODF is similar to ODA, but it has slightly lower standards. Hence, all ODA is also ODF, but not all ODF is also ODA. In essence, ODF consists of many different types of aid. The reason for using ODA over ODF lies in the fact that rules for reporting on ODA are often much more specific. ODF spending and the goals of the spending may be too vague.

Migration

The main dependent variable is migration. The analysis will focus on immigration from African country X into the European Union.

The annual inflow of African migrants into the European Union will be taken into account. Data will be split per (African) country. This entails that all African migrants who have entered the EU are divided over the 54 African countries based on their citizenship. The analysis will focus on migration from each country into the European Union as a whole.

Migration data mainly comes from the most comprehensive dataset available, which is the Eurostat database of the European Union (Eurostat, 2021). Compared to other datasets, this dataset is the one that consists of the most standardised data. This means that the measurements mostly occur in the same manner, making it possible to do valid calculations with it. The dataset that is used is the "Immigration by age group, sex and citizenship" dataset which is part of the "Migration and migrant population dataset" (Eurostat, 2021). In this dataset, the migrants that are included are part of the "usually resident population". The definition of this group is as follows: "those who have lived in their place of usual residence continuously for at least 12 months before the reference date or those who have arrived in their place of usual residence during the 12 months before the reference date with the intention of staying there for at least 1 year" (Eurostat, 2021).

In general, all countries thus share the same definition of a migrant. There are however minor differences in the way countries report migration statistics. For the Czech Republic, the Netherlands, Poland and Slovakia goes that children who are born in one of these four countries, that they are included in migration statistics for the country of origin of the parents. For all other EU countries goes that these births are not included in the migration statistics. For this study, the assumption is made that this difference will not affect the results to a large extent, which is why the choice is made to ignore this minor difference in measurements.

Moreover, some countries have not shared information with Eurostat. Examples are Latvia, Poland, Portugal, Greece, Cyprus, Malta and France. In addition, German data in the Eurostat database is missing for the years after 2008. The same goes for Italy, but then for the years prior to 2008.

Some of these countries are however relatively large contributors in terms of ODA. France for example is responsible for over 18% of the total ODA disbursed by EU member states in Africa between 2000 and 2019. For Germany, this figure is almost 13%. The decision has therefore been made to look for alternative sources on migration data specifically for these two countries. The data used for these countries come from the OECD (OECD4, n.d.). A huge disadvantage though is that each country reports in a different manner to the OECD. As a result, the data about migration France is measured in a different manner than the data used in the Eurostat dataset. Nevertheless, this data is still valuable because within countries, measurements are the same over the years, so annual differences are still recognised.

For Germany and Italy goes that it happens to report in the same manner to Eurostat as to the OECD, where the difference is that the data shared with the OECD is more complete than data shared with Eurostat. Therefore, for the missing years of those countries, the Eurostat data was completed by data from the OECD. It is unclear however why these countries have not shared their data with Eurostat.

As explained above, two separate analyses will be carried out due to availability of ODA data. As fewer countries report reliably on ODA sectors, some countries were taken out for the second analysis. As a consequence, also migration data is adapted for this second analysis in such a manner that only migration statistics are included of the countries that are a part of the dataset on ODA sectors.

Inequality

One of the aims of this thesis is to extend the knowledge on the budgetary-constraint hypothesis. The general assumption is that GDP per capita at first has a positive effect on migration but then at higher levels of GDP per capita, this effect turns negative again. As has been argued in the previous chapter however, this relationship requires additional attention. One of the suggestions is that migration is also driven by inequality. The reasoning behind this is that people might make a rational cost/benefit analysis and come to the conclusion that their chances of increasing their wealth are bigger in a different country. This is because they may see other people within their country increasing their wealth, whereas poorer people may remain poor due to an unequal division of wealth.

Measurements of inequality are however incredibly difficult. Several indicators capture do capture the essence, very few however contain enough data for the relevant countries and the relevant years. Given the circumstances, the best option to capture this effect is provided by the Varieties of Democracy (V-dem) dataset (Sigman et. Al, 2015). This dataset contains an indicator on the equality of the distribution of resources. This involves aspects like access to water, housing, education and healthcare. It is thus

broader than poverty or financial inequality alone, making it quite a good measurement for capturing the effect that this study is interested in. It captures both the extent to which all people are able to enjoy certain services but also what the quality is of these services. The measurement scale from V-dem measures on a scale from 0 to 1, where 0 corresponds with extremely low equality of access to resources and 1 with perfect equality of access to resources.

GDP per Capita

Consistent with the other literature on the topic, GDP per capita will be used as a control variable. Ample evidence has been found of a bell-shaped curve depicting the relationship between GDP and migration. Moreover, as the aim of this thesis is to further extend the knowledge on the budgetary constraint hypothesis, it is important to take this into account. The data comes from the World Bank and will be measured in constant prices based on the US Dollar from 2010 (World Bank, n.d.).

Control variables and operationalization

Political Stability

Lanati & Thiele (2018) found a strong relationship between political stability and migration. Given that political stability has such a big impact on migration, it is necessary to control for this effect. Political stability will be measured by using the Political Stability and Absence of Violence/Terrorism dataset from the Worldbank. This dataset measures the perceptions of people on the likelihood that instability will occur. It is recognised that perceived instability may differ from actual instability but given that a choice to migrate is based on a calculation of different factors, it makes sense to include this measurement. The dataset measures in units of a normal distribution with a scale ranging from approximately -2.5 to 2.5 where a score of -2.5 corresponds with perfect instability and 2.5 with perfect stability (World Bank, 2020).

Effectiveness of Governance

Effectiveness of governance refers to the ability of governments to deliver public services. Increasing quality of services is one of the aspects that Lanati & Thiele (2018) used to explain the negative the relationship between ODA and migration that they have found. The reasoning behind it is that if the quality of public services increases, the need to migrate decreases. Effectiveness of governance is again measured by the Worldbank on a scale from -2.5 to 2.5 where -2.5 corresponds with a low quality of public services and 2.5 with a high quality of public services (World Bank, 2020). It is again based on a perception rather than an actual measurement of the quality of services, which makes sense in this case when considering that a decision to migrate can also be rooted in perceptions that prospective migrants have regarding the governance of their country of origin.

Civil Liberties

As suggested by the literature, civil freedoms can also impact the decision to migrate. This is particularly the case when people experience oppression. The relevance to include this indicator as a control variable stems from ODA flows. It is quite common that ODA programs work towards increasing civil liberties. Therefore, it makes sense to also include this as a variable in the analysis. The World Bank's indicator on Voice and Accountability captures perceptions on the extent to which people experience freedom of expression, freedom of media and whether they are able to choose their own government. Scores rank on a scale from -2.5 to 2.5 where -2.5 corresponds with extremely limited freedom and 2.5 corresponds with perfect freedom (World Bank, 2020).

Missing Observations/Removal of Cases

The dataset consists of over 60.000 observations for ODA and migration alone. As a result, it is unavoidable that the dataset also contains missing variables. As explained above, there was specifically a problem with data from certain European countries. For Belgium, France and Germany, they were solved by searching for data in other sources. This still leaves us with a few countries that report either poorly on ODA and on migration or they report not at all. This goes for Latvia, Poland, Portugal, Greece, Cyprus and Malta. The decision has been made to remove them completely from the analysis in order not to further pollute the data. Especially for Greece, this is undesirable since they do play a key role in the EU's migration policy due to its geographic location on the outside border of the EU. Also the United Kingdom is taken out of the analysis. Although the United Kingdom is no longer a member of the EU, it still was during the years over which the analyses will be carried out. Even though their ODA data is complete and they happen to be a relatively large contributor to ODA, because of their poor migration data, the decision has been made to remove the United Kingdom from the analysis as well.

Chapter 4: Results

This chapter will elaborate upon the results of the data analysis as proposed in chapter three. As explained before, the results as a whole consist of two separate analyses. The first analysis focuses on ODA as a whole, meaning that bilateral ODA is taken into account without splitting it out per sector. This analysis serves to test hypothesis 1 and hypothesis 3 from chapter 2. In the second analysis, ODA is split into sectors as explained in chapter 3. This makes it possible to test hypothesis 2a until 2e, but also hypothesis 3 is tested again to see if the outcome is different. Both analyses will be explained in the same manner. This means that in the first place, a general overview of the results is presented including a discussion about the interpretation. This is then followed by some robustness checks.

Analysis 1: the Effect of Total ODA on Migration

As said, the purpose of the first analysis is to determine if there is an effect of total ODA on migration. This relationship was investigated by applying fixed-effects OLS regression to the dataset. Although Africa consists of 54 countries, this analysis is based on 49. Djibouti, Eritrea, South Sudan and Somalia were removed from the analysis due to missing data. Morocco was removed from the analysis, due to the country being considered an outlier, as its absolute residuals scored too high. See appendix 1 for further explanation. The results are thus based on an analysis of the 49 remaining countries¹.

Overview of the results

To correctly interpret the results of the analysis, it is useful to first get an understanding of the kind of data that is used in the analysis. The figure below containing descriptive statistics will help to do so.

¹ Initially, also a control variable measuring corruption was added to the analysis. However, due to a too high correlation with both political stability and civil liberties, it was taken out. There was no issue of a too high correlation between civil liberties and political stability after removal of the corruption variable.

| | Valid N | Minimum | Maximum | Mean | Standard Deviation |
|--------------------------|---------|----------|-----------|----------|--------------------|
| Total Immigration | 784 | 6 | 41,730 | 3,921 | 6,291.94 |
| Total ODA | 784 | -113.870 | 5,572.70 | 251.63 | 361.46 |
| GDP per Capita | 784 | 194.873 | 20,532.95 | 2,612.72 | 3,364.467 |
| Inequality | 784 | 0.08 | 0.940 | 0.435 | 0.209 |
| Governance Effectiveness | 784 | -1.892 | 1.057 | -0.722 | 0.601 |
| Political Stability | 784 | -2.670 | 1.200 | -0.519 | 0.874 |
| Civil Liberties | 784 | -2.000 | 0.998 | -0.568 | 0.710 |

Figure 1: Descriptive statistics of the variables used in the first regression analysis

This overview helps to get an understanding of the amount of variance that exists within one variable. Some noteworthy aspects of the overview are for instance the values for inequality, governance effectiveness, political stability, civil liberties and corruption. As these are all measured on a relatively small scale, the value of a coefficient for any of these variables in the regression analysis might have a lower impact than it may seem at first sight.

Something else that might need an explanation is the negative minimum value for total ODA. This value is not the result of faulty measurements but a consequence of the way ODA is measured. A value is reported as negative when there is a reflow from for instance a private sector partner back to a government. An example of this could be profits used to pay off loans. This amount is then registered as negative ODA. Thus, when the total amount of reflows is higher than the amount disbursed by the donor country, the overall value can turn negative (OECD, 2019).

Figure 2 reports the results of the regression analysis that was carried out. Seven different models were estimated, with each model containing an additional variable.

| Model | M1 B | M2 B | M3 B | M4 B | M5 B | M6 B |
|-----------------------------|-------------------|-------------------|----------------------|---------------------|-------------------------|-----------------------|
| Intercept | 34,743* | 34,451* | 34,131* | 33,493* | 32,284* | 34,600* |
| Total ODA | -0.328 (0.249) | -0.322 (0.249) | -0.324 (0.249) | -0.317 (0.249) | -0.319 (0.248) | -0,338 (0.245) |
| GDP per Capita | | 0.065 (0.105) | -0.063 (0.105) | 0.072 (0.105) | -0.125 (0.107) | 0.145 (0.106) |
| Inequality | | | 440.91 (1,783.23) | 857.64 (1818.71) | -1,653.27 (1,839.87) | -384.73 (1,834.71) |
| Governance Effectiveness | | | | -530.06 (457.37) | -27.32 (498.04) | -129.02 (491.62) |
| Political stability | | | | | -547.84* (218.90) | -587.05* (216.03) |
| Civil liberties | | | | | | 1,685.76* (362.11) |
| F | 143.378 | 140.400 | 137.472 | 134.918 | 133.443 | 135.082 |
| Adjusted R ² | 0.899 | 0.899 | 0.899 | 0.899 | 0.900 | 0.902 |

Figure 2: OLS regression analysis results on the effect of total ODA on migration and inequality on migration with GDP per capita, Governance effectiveness, political stability, civil liberties as control variables. A fixed-effects approach was used with African countries used as dummies.

Standard error in parentheses

N=784

* $p < 0.05$

The main effect that is relevant in this analysis is the effect of total ODA on migration. As is visible in the table, the effect of ODA on migration is not significant in any of the models. Hence, the conclusion regarding the effect of total ODA on migration is simple, namely that no effect is found of ODA on migration.

In these six models, there are only two variables that have a significant result. In model 5, political stability has a significant value of -547.84. This means that every 1 unit increase in political stability results in 547 fewer immigrants into the European Union. In model 6, also the civil liberties variable is significant. The value of 1,685.76 means that with every 1 unit increase in civil liberties, 1,685 people will migrate into the European Union. For both these variables however, it must be kept in mind that they are measured on a relatively small scale, meaning that a 1-unit increase is a relatively large step. Year to year differences on this variable are usually not much larger than one tenth.

Strikingly, no effect was found for GDP per capita. This is highly surprising given the consensus that seemed to have emerged in the literature about this effect. Therefore, an additional analysis was carried out. In the literature, the threshold for which GDP per capita has different effects on migration is situated roughly around a GDP per capita of \$7,000. More specifically, Berthélemy et. al. (2009) find this threshold to be situated at \$7,318. In the additional analysis, countries were divided into two groups, one group with a GDP per capita lower than \$7,318 and one group with a GDP per capita higher than \$7,318. The results of this analysis can be found in the tables below.

| Model | M1 | M2 | M3 | M4 | M5 | M6 |
|-----------------------------|----------------|-----------------|--------------------------|--------------------------|--------------------------|-----------------------|
| | B | B | B | B | B | B |
| Intercept | 755.33* | 1,105.72* | 6,249.72* | 4,289* | 2,82* | 3,62* |
| Total ODA | 0.38 (0.91) | 0.33 (0.91) | 0.69 (0.78) | 0.08 (0.76) | -0.46 (0.61) | -0.451 (0.57) |
| GDP per Capita | | -0.04 (0.04) | -0.03 (0.03) | -0.03 (0.03) | 0.03 (0.03) | 0.033 (0.03) |
| Inequality | | | -8,231.67* (1,488.98) | -6,569.77* (1,504.22) | -3,823.07* (1,263.74) | -3,63* (1,180.40) |
| Governance Effectiveness | | | | -1,213* (385.35) | -339.11 (332.91) | -388.77 (310.94) |
| Political stability | | | | | -839.64* (125.46) | -578.30* (139.24) |
| Civil liberties | | | | | | 1,132.30* (326.72) |
| F | 11.31 | 9.99 | 15.69 | 16.77 | 28.22 | 30.72 |
| Adjusted R ² | 0.46 | 0.46 | 0.61 | 0.65 | 0.78 | 0.81 |

Figure 3: OLS regression analysis results on the effect of total ODA on migration and inequality on migration with GDP per capita, Governance effectiveness, political stability, civil liberties as control variables. Only countries with a GDP per capita greater than \$7,318 were included.

N=86

**p<0.05*

In figure three, which reports on the results of the analysis with countries with a GDP per capita greater than \$7,318, GDP per capita is still not significant. However, this is different for the inequality variable. All models show that countries with a relatively high GDP per capita, inequality starts to play a role; increasing inequality results in less migration. This is however not what we find in the analysis with countries with a relatively low GDP per capita.

| Model | M1 B | M2 B | M3 B | M4 B | M5 B | M6 B |
|-----------------------------|-----------------|-----------------|------------------------|------------------------|------------------------|------------------------|
| Intercept | 34,746.67* | 27,471.40* | 26,269.30* | 26,083.01* | 25,743.09* | 28,807.75* |
| Total ODA | -0.34 (0.26) | -0.23 (0.26) | -0.24 (0.26) | -0.24 (0.26) | -0.24 (0.26) | -0.27 |
| GDP per Capita | | 1.61* (0.35) | 1.60* (0.35) | 1.60* (0.35) | 1.58* (0.35) | 1.29* (0.37) |
| Inequality | | | 1,670.36 (1,972.78) | 1,797.38 (1,999.54) | 2,108.03 (2,018.22) | 1,002.32 (2,042.35) |
| Governance Effectiveness | | | | -203.65 (510.14) | 32.48 (551.76) | -55.53 (549.44) |
| Political stability | | | | | -283.65 (252.83) | -419.88 (255.71) |
| Civil liberties | | | | | | 1,234.86* |
| F | 133.59 | 135.19 | 132.33 | 129.46 | 126.95 | 126.06 |
| Adjusted R ² | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |

Figure 4: OLS regression analysis results on the effect of total ODA on migration and inequality on migration with GDP per capita, Governance effectiveness, political stability, civil liberties as control variables. Only countries with a GDP per capita of less than \$7,318 were included.

N=698

standard error in parentheses

**p*<0.05

In the analysis including countries with a relatively low GDP per capita, inequality does not seem to play a big role given that its value is not significant. GDP per capita, however, is significant. An increasing GDP per capita also results in higher migration rates. So at least the first part of the budgetary constraint hypothesis can be confirmed, namely that migration rates increase under rising levels of GDP up until the identified threshold of USD 7,318.

In figure three, two significant effects can be found. First of all, the effect of political stability is negative. This means that increased political stability leads to less migration. It seems likely that increased instability goes hand in hand with forced migration. Think for instance about war (as a cause of instability) and refugees fleeing the war.

The other significant effect comes from civil liberties. Here, a positive effect is found, meaning that increased civil liberties go hand in hand with increased migration. This is likely to result from an opening up of the country to the rest of the world, thereby enabling migration.

Only in figure four, the analysis including countries with a relatively low GDP per capita, could some evidence be found for the budgetary constraint hypothesis. Based on this analysis, the first part of the budgetary constraint hypothesis can be confirmed. This is not the case for the second part of the budgetary constraint hypothesis, which states that migration reduces after the threshold situated around a GDP per capita of \$7,318.

A striking result however that does come from the analysis including the countries with a relatively high GDP per capita is the effect of inequality. In all models in figure three, a significant effect is found for inequality. The result is exactly similar to what has been hypothesized. The third hypothesis that this study attempts to answer was formulated as follows: the more unequal wealth is divided, the higher the migration rates. In figure three, we find a negative relationship between inequality and migration. This means that increasing equality results in less migration. However, it must be noted that this effect is reduced to a minimum with the addition of the variables of political stability and civil liberties.

The results from the regression analysis show an insignificant effect of total ODA on migration. It does mean that the hypothesis 1 can be answered. This hypothesis was formulated as follows: the relationship between total ODA and immigration is positive. Based on the results of this analysis, this hypothesis is rejected because no significant results could be found. This means that an important conclusion can be drawn, namely that simply investing in ODA in order to impact migration flows is not a useful approach to influence migration flows.

In the next section, the trustworthiness of the models will be determined. This is done by carrying out four robustness checks.

Robustness

This model was tested on four assumptions that are important in linear regression models. The graphs and charts to support the outcomes are found in the appendix. The conclusion of the checks is presented here. The assumptions that are tested are elaborated upon in Field (2009). The assumptions that are checked are the following:

1. Additivity and linearity: you expect the X-variables to be linearly correlated with the Y variables in order to estimate the effect. The data is not perfectly linear, and hence fails this test. This means that the results are not very robust in terms of linearity.
2. Homoscedasticity: regarding the predictors, the variance of the residuals, so the difference between the line of the model and the observations, should be roughly constant. In the data for this analysis, this assumption is not perfectly met but it does not divert too much.

3. Independent errors: the residual terms should not be correlated. When they are correlated, there is autocorrelation. Because of the characteristics of panel data, autocorrelation is a negligible issue.
4. Normally distributed errors: ideally, one would expect the residuals to be small, or at least to centre around 0. Hence, you expect the mean of the errors to be 0. This means that you would expect the errors to be normally distributed. This is indeed the case. The residuals are normally distributed as can be seen in appendix 3.

Conclusion

This first analysis shows that there is no effect of total ODA on migration. The main take away point from this is therefore that simply increasing ODA budgets will therefore not lead to less migration flows. In addition, there is some evidence that inequality plays a role in terms of migration. Now that it has been established that overall ODA does not affect migration flows, it is useful to consider more detailed ODA sectors, which is what the aim is of the next section.

Analysis 2: the Effect of Sectors of ODA on Migration

In this second analysis, ODA will be divided into sectors. The OECD distinguishes between seven sectors plus one for unallocated ODA. Those sectors are included in the models below. The approach is rather similar, but the data is slightly different. This has already been touched upon in the previous chapter, but is important to emphasize. Not all EU-countries reported extensively enough on ODA sectors, and therefore the ODA data is taken from a limited number of EU countries. Moreover, reporting on different sectors is something that has only started to take off towards the end of the first decade of this century. Hence, this dataset only takes into account the years 2008 up until and including 2018.

Two analyses will be carried out in this section. Following the example of Lanati & Thiele (2018), broader sectors of ODA are taken into account first. This means that the first analysis consists of sectors such as social infrastructure or production whereas in the second analysis, these sectors are broken down into the components of the sectors, for as far that that was possible.

Like in analysis 1, five countries were excluded from the analysis. These are the same countries and they are excluded for either being considered an outlier, like Morocco, or due to incomplete data like with Djibouti, Somalia, South Sudan and Eritrea.

Overview of the Results

Like in the first analysis, it is useful to first get an understanding of the data that is used in the analysis. The figure below with descriptive statistics will help to get that understanding.

| | Valid N | Minimum | Maximum | Mean | Standard Deviation |
|--|---------|---------|-----------|----------|--------------------|
| Total Immigration | 49/11 | 6 | 38,456 | 4194.30 | 6,368.20 |
| GDP per Capita | 49/11 | 210.80 | 20,532.95 | 2,711.38 | 3,436.00 |
| Inequality | 49/11 | 0.08 | 0.94 | 0.44 | 0.21 |
| Governance Effectiveness | 49/11 | -1.89 | 1.06 | -0.74 | 0.60 |
| Political Stability | 49/11 | -2.70 | 1.20 | -0.55 | 0.86 |
| Civil Liberties | 49/11 | -2.00 | 1.00 | -0.55 | 0.71 |
| ODA Social Infrastructure and Services OVERALL | 49/11 | 0.00 | 643.74 | 101.22 | 105.51 |
| ODA Education | 49/11 | 0.00 | 369.07 | 28.67 | 35.83 |
| ODA Water Supply | 49/11 | 0.00 | 265.98 | 20.04 | 38.84 |
| ODA Economic Infrastructure OVERALL | 49/11 | 0.00 | 751.39 | 34.53 | 72.04 |
| ODA Energy | 49/11 | 0.00 | 501.73 | 17.23 | 46.58 |
| ODA Transport and Communication | 49/11 | 0.00 | 395.64 | 9.65 | 34.07 |
| ODA Production OVERALL | 49/11 | 0.00 | 179.61 | 18.63 | 27.69 |
| ODA Agriculture | 49/11 | 0.00 | 177.14 | 14.66 | 23.14 |
| ODA Industry | 49/11 | 0.00 | 127.30 | 3.39 | 12.12 |
| ODA Tourism | 49/11 | -0.42 | 30.42 | 0.58 | 2.26 |
| ODA Multisector | 49/11 | 0.00 | 299.95 | 18.26 | 33.00 |
| ODA Programme Assistance OVERALL | 49/11 | 0.00 | 791.03 | 16.89 | 53.74 |
| ODA Food Aid | 49/11 | 0.00 | 165.72 | 3.72 | 11.02 |
| ODA Debt OVERALL | 49/11 | 0.00 | 2,002.19 | 26.32 | 157.86 |
| ODA Humanitarian Aid OVERALL | 49/11 | 0.00 | 437.55 | 16.53 | 41.03 |
| ODA Unallocated OVERALL | 49/11 | 0.00 | 301.52 | 8.33 | 28.03 |

Figure 5: Descriptive statistics of the variables used in the second regression analysis with ODA split out into different sectors

The descriptive statistics of the control variables have, logically, not changed that much. Any changes in those values are the result of the more limited time frame that was used. The sectors which have OVERALL included in the name is the aggregate of the sectors below.

From this figure, the main aspect that stands out is the relatively large differences in the amounts spent in a sector. For instance, with an average spending of US\$17.23 million, education receives quite a large share of the funding, on average, whereas investments in tourism are quite low, averaging at only US\$ 0.58 million. This is mainly important when interpreting the results.

In figure 6 below, the results can be found of the OLS regression with the different, broader, ODA sectors. A similar approach was used as in analysis 1 where each new model includes a new control variable. The different ODA sectors are all introduced at once as it is not helpful to introduce them separately.

| Model | M1 | M2 | M3 | M4 | M5 | M6 |
|-----------------------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-------------------------|
| | B | B | B | B | B | B |
| Intercept | 32,749.03* | 32,570.83* | 32,778.98* | 33,577.02* | 33,440.26* | 35,752.87* |
| ODA Social Infrastructure | -0.75 (1.45) | -0.74 (1.45) | -0.74 (1.45) | -0.81 (1.45) | -0.94 (1.47) | -1.61 (1.45) |
| ODA Economic Infrastructure | 0.85 (1.58) | -0.85 (1.59) | -0.85 (1.58) | -0.89 (1.59) | -0.83 (1.59) | -0.52 (1.57) |
| ODA Production | 5.40 (4.28) | 5.38 (4.29) | 5.42 (4.30) | 5.34 (4.30) | 5.34 (4.31) | 5.06 (4.23) |
| ODA Multisector | 4.53 (3.21) | 4.55 (3.21) | 4.57 (3.22) | 4.59 (3.22) | 4.63 (3.23) | 4.35 (3.17) |
| ODA Programme Assistance | -0.76 (1.70) | -0.74 (1.71) | -0.74 (1.70) | -0.79 (1.71) | -0.66 (1.72) | -0.31 (1.70) |
| ODA Debt | 0.22 (0.62) | 0.22 (0.62) | 0.23 (0.62) | 0.25 (0.62) | 0.25 (0.62) | 0.25 (0.61) |
| ODA Humanitarian Aid | 22.57* (2.92) | 22.62* (2.93) | 22.62* (2.93) | 22.92* (2.95) | 22.80* (3.00) | 23.15* (2.90) |
| ODA Unallocated | 14.89* (4.31) | 14.87* (2.93) | 14.95* (4.36) | 14.13 (4.42) | 13.87* (4.49) | 10.34* (4.48) |
| GDP per Capita | | 0.04 (0.12) | 0.04 (0.12) | 0.03 (0.12) | 0.05 (0.13) | 0.06 (0.13) |
| Inequality | | | -281.58 (2,112.71) | -735.06 (2,153.14) | -635.69 (2,203.88) | -1,327.81 (2,168.29) |
| Governance Effectiveness | | | | 744.86 (685.43) | 800.61 (789.60) | 1,144.82 (778.74) |
| Political stability | | | | | -195.60 (296.74) | -154.80 (291.32) |
| Civil liberties | | | | | | 2,134.13* (484.62) |
| F | 103.02 | 100.99 | 99.05 | 97.43 | 93.97 | 96.33 |
| Adjusted R ² | 0.91 | 0.92 | 0.91 | 0.91 | 0.91 | 0.92 |

Figure 6: OLS regression analysis results on the effect different ODA sectors on migration and inequality on migration with GDP per capita, governance effectiveness, political stability, civil liberties as control variables.

N=459

* $p < 0.05$

A number of things stand out in the results of the regression analysis. The results show that only one sector of ODA has a significant effect on migration in addition to the unallocated ODA. Of the ‘‘substantive’’ sectors, only humanitarian aid has a significant effect. With regards to the control variables, the results show quite a large effect for civil liberties on migration, as was the case with analysis 1. For all the other sectors, no significant effects were found. It is therefore useful to conduct the second part of the analysis, as has already been explained above, where the ODA sectors are divided into the smaller components that they are made up from. The results of this analysis can be found below in figure 7.

| Model | M1 | M2 | M3 | M4 | M5 | M6 |
|---------------------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|-------------------------|
| | B | B | B | B | B | B |
| Intercept | 32,514.27* | 32,332.17* | 32,250.16* | 33,047.16* | 32,830.19* | 35,693.60* |
| ODA Education | 1.21 (4.30) | 1.21 (4.30) | 1.18 (4.33) | 1.12 (4.33) | 1.05 (4.34) | 0.90 (4.25) |
| ODA Water Supply | 3.67 (2.70) | 3.69 (2.71) | 3.70 (2.72) | 3.57 (2.72) | 3.57 (2.72) | 2.34 (2.68) |
| ODA Energy | 1.47 (2.27) | 1.46 (2.27) | 1.47 (2.27) | 1.38 (2.72) | 1.42 (2.28) | 3.15 (2.26) |
| ODA Transport and Communication | -3.74 (2.75) | -3.74 (2.75) | -3.74 (2.76) | -3.81 (2.76) | -3.82 (2.76) | -4.61 (2.71) |
| ODA Agriculture | 8.04 (5.31) | 8.05 (5.31) | 8.02 (5.34) | 8.35 (5.35) | 8.32 (5.36) | 7.48 (5.25) |
| ODA Industry | 4.31 (7.70) | 4.23 (7.71) | .23 (7.72) | 3.38 (7.73) | 3.41 (7.77) | 4.34 (7.61) |
| ODA Tourism | -109.38* (41.86) | -109.19* (41.90) | -109.29* (41.98) | -108.58* (41.98) | 108.15* (42.04) | -107.27* (41.17) |
| ODA Multisector | 2.70 (3.29) | 2.73 (3.29) | 2.72 (3.30) | 2.75 (3.30) | 2.74 (3.30) | 1.97 (3.24) |
| ODA Programme Assistance | -0.81 (1.71) | -0.79 (1.71) | -0.79 (1.71) | -0.86 (1.71) | -0.79 (1.73) | -0.85 (1.69) |
| ODA Food Aid | 14.24 (11.24) | 14.24 (11.25) | 14.25 (11.27) | 15.17 (11.30) | 14.68 (11.39) | 19.44 (11.20) |
| ODA Debt | 0.30 (0.61) | 0.30 (0.61) | 0.30 (0.62) | 0.32 (0.62) | 0.33 (0.62) | 0.32 (0.60) |
| ODA Humanitarian Aid | 21.35* (2.87) | 21.40* (2.88) | 21.40* (2.88) | 21.67* (2.90) | 21.60* (2.91) | 21.81* (2.85) |
| ODA Unallocated | 14.57* (4.27) | 14.55* (4.28) | 14.52* (4.32) | 13.71* (4.39) | 13.73* (4.39) | 9.34* (4.41) |
| GDP per Capita | | 0.04 (0.12) | 0.04 (0.12) | 0.03 (0.12) | 0.04 (0.13) | 0.04 (0.13) |
| Inequality | | | 115.38 (2,114.97) | -348.20 (2,158.28) | -220.57 (2,189.93) | -1,152.14 (2,154.51) |
| Governance Effectiveness | | | | 737.54 (987.09) | 828.33 (733.66) | 848.19 (718.59) |
| Political stability | | | | | -105.01 (295.51) | -50.64 |
| Civil liberties | | | | | | 2,175.63* (474.10) |
| F | 115.91 | 94.66 | 92.97 | 91.56 | 89.99 | 92.70 |
| Adjusted R ² | 0.94 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |

Figure 7: OLS regression analysis results on the effect of the different ODA sectors on migration and inequality on migration with GDP per capita, Governance effectiveness, political stability, civil liberties as control variables. A fixed effects approach was used with African countries as dummies. N=459. Standard error in parentheses. *p<0.05.

This more elaborate analysis reveals slightly more than the previous analysis. Like in the previous analysis, a significant effect is found for humanitarian aid and unallocated aid. In addition, a significant effect is found for ODA invested in tourism. All of the other sectors do not result in a significant effect. For the control variables, a similar pattern is observed as with the first analysis, namely that civil liberties remain quite influential in impacting migration flows. Also in this analysis, inequality does not seem to play an important role in influencing migration flows.

The analysis came back with only a limited number of significant ODA sectors. In the first part of this second analysis, only two broader sectors had a significant value. These were humanitarian aid and unallocated aid. The significant result of humanitarian aid on migration should, however, be put in context. People are likely to migrate following for instance a natural disaster, and humanitarian aid is generally disbursed when a natural disaster takes place. Hence, it is not humanitarian aid causing migration but rather a natural disaster causing both migration and ODA flows.

This second part of the second analysis makes it possible to accept or reject the various hypotheses that were drawn up at this specific level. Each of the hypotheses will be addressed separately.

Hypothesis 2a was formulated as follows: the relationship between ODA invested in education and migration is positive. The regression analysis has found no significant relationship between ODA invested in education and migration. This hypothesis is therefore rejected.

Hypothesis 2b was formulated as follows: the relationship between ODA invested in tourism and migration is positive. The results of the regression analysis show that there seems to be quite a strong effect of ODA invested in tourism. However, it is important to note that in figure 5, it becomes visible that the average spending on ODA is relatively low, raising the question whether such small amounts can really create this effect. Nevertheless, the outcome is still significant, leading to the conclusion that this hypothesis is accepted.

Hypothesis 2c was formulated as follows: the relationship between ODA invested in components of economic infrastructure is negative. No significant results were found between any of the components making up the economic infrastructure sector. Hence, this hypothesis is rejected.

Hypothesis 2d was formulated as follows: the relationship between ODA invested in agriculture and migration is negative. Again, no significant results have been found, leading to the conclusion that this hypothesis has to be rejected.

The last hypothesis on this specific level was hypothesis 2e, which was formulated as follows: the relationship between ODA invested in industry and migration is negative. No significant results were found, leaving no other option than to reject this hypothesis.

The second analysis also served as an extra check on hypothesis 3, which was formulated as follows: the more unequal wealth is divided, the higher the migration rates. Under the first analysis, only some evidence was found after separating the countries into two groups based on their GDP per capita. In the second analysis, no evidence at all was found for the existence of such a relationship. Hence, based on the second analysis, hypothesis 3 is rejected.

Robustness

As also the independent variable is different from the first analysis, the same robustness checks need to be carried out. This is a brief summary of the outcomes of the tests with more details in the appendix.

1. Additivity and linearity: The data is not perfectly linear, and hence fails this test. This means that the results are not very robust in terms of linearity.
2. Homoscedasticity: For this analysis, this assumption is not perfectly met but it does not divert too much.
3. Independent errors: the residual terms should not be correlated. When they are correlated, there is autocorrelation. Because of the characteristics of panel data, autocorrelation is a negligible issue.
4. Normally distributed errors: The residuals are normally distributed as can be seen in appendix 6.

Conclusion

The second analysis made it possible to look at a much more detailed level what the exact effect is of ODA on migration. Strikingly however, this did not lead to very different conclusions than those of analysis 1, namely that, with a few exceptions, ODA does not affect migration flows. One of the exceptions was tourism, where a significant effect was identified. Nevertheless, the overall conclusion based on this analysis has to be that ODA does not affect migration flows.

Chapter 5: Conclusion

The European Union deploys multiple methods in order to curb migration flows. Disbursing ODA in order to take away the root causes of migration is one of the ways with which this is attempted. It is perhaps one of the least controversial options but it does raise the question, however, whether this is a fruitful approach. This is what this study has attempted to find out. In this conclusion, the final answers to the research questions will be given.

Research Question 1

The first research question was formulated as follows: how does official development assistance provided for by the members of the European Union affect immigration into the European Union from the African continent? This question was answered by conducting regression analysis on panel data from all African countries. The results that were found were quite weak. Based on the first analysis that was carried out, no effect was found to substantiate any claim of the effect of ODA on migration.

The second analysis that was carried out further attempted to provide an answer to the first research question. By looking at the different sectors of ODA, an attempt was made to see if these sectors had an impact on migration. Unlike previous research, this study was able to use very specific sectors. Instead of using broad sectors such as social infrastructure or economic infrastructure, this study was able to break it down in more specific categories like education or transportation & communication. However, significant effects were only found for a small number of sectors; tourism, humanitarian aid and ODA that was not specified per sector. These results are surprising given the outcomes of previous studies. However, based on the analyses carried out in this study, the answer to the first research question is that only limited evidence is found of a relationship between certain sectors of ODA and migration, and that no relationship was found between overall ODA and migration.

This outcome is surprising for two reasons. First of all, other studies in the field came to different conclusions. This study shows that the outcome of those studies cannot be generalised to the scope of this study. Moreover and perhaps more importantly, the outcomes of this study also show that attempts to influence migration flows via ODA is not effective. Considering that ODA is disbursed by the European Union and by the Dutch government to achieve this goal, the outcome of the study calls into question the appropriateness of this policy. This study has shown that such an approach is thus not rooted in empirical evidence and should therefore be reconsidered.

Research Question 2

The second research question that this study tried to answer is formulated as follows: How does inequality in the distribution of resources affect immigration into the European Union from the African continent. In first instance, no significant effects were found in both analysis 1 and analysis 2. However, an additional analysis was carried out under analysis 1 to see what the impact was of GDP per capita

for the relatively poorer and relatively richer countries. Conducting this analysis also led to new results on the role of inequality. A negative relationship was found between equality and migration for the richer countries. This is in line with what had been hypothesized, which had been reversely formulated, namely that high levels of inequality result in more migration. The analysis shows that when there is more equality, this leads to less migration. However, this effect diminished almost completely upon the introduction of control variables. This shows that there may be some evidence for the effect that inequality plays in migration, but this evidence is rather thin.

Based on the analyses carried out, the conclusion to the research question is that there is some evidence to suggest that high levels of inequality lead to more migration however the evidence is too limited to draw very strong conclusions.

Discussion and recommendations

This study replicated to some extent the study carried out by Lanati & Thiele (2018). Especially their findings regarding the effect that certain ODA sectors have on migration was a relative novelty, making it an important contribution. It is disappointing therefore that this study was not able to confirm or disprove their outcomes.

This study attempted to add to previous studies by attempting to shed additional light on the budgetary constraint hypothesis. Some light evidence was found of the relationship between inequality and migration, but this evidence was too limited to draw strong conclusions. Additional research is therefore required. I suggest that new research should be on the micro-level rather than on the macro-level, as only then can the actual workings of the supposed mechanism of inequality be clearly shown. Looking at personal situations of (prospective) migrants could lead to an answer to the question *who* the migrant is. It would make it possible to determine more precisely what the role of inequality is in a decision to migrate.

Another aspect that this study added to the existing works is the disaggregation of broad ODA sectors in the analysis. Whereas Lanati & Thiele (2018) were among the first to incorporate these ODA sectors, this study was able to break them down further into more specific categories. Even though no strong conclusions could be drawn regarding the link between sectors of ODA and migration, it is important it has become possible to conduct such analysis. This is only possible because of increased data availability of donor countries.

The availability of data however was a major cause of concern for this study. The starting point of this study was the approach that the Dutch government has taken regarding ODA. ODA was to be instrumentalised to influence migration flows, according to the Dutch government. It was very surprising to find out that reporting on migration flows at the EU level is of rather poor quality. One of the problems was that not all countries reported to the EU and moreover that no distinction is made

between the type of migration. A refugee is therefore counted in the same way as someone traveling on a student visa. In addition, upon attempting to fill the data for countries that were missing, I found out that a countries like Cyprus or Malta only distinguish migrants by whether or not they are EU-citizens. For a topic that is so polarised, it is hard to understand why this is the case. With reporting being of the quality that it is, it seems difficult to build coherent policies around it. Moreover, lack of proper statistics make it possible for opportunistic politicians to continue framing migrants in a negative manner.

The problem of data availability undeniably impacted the dataset that was used for this study. I attempted to solve it in the best way I could imagine, but this did impact the reliability of my dataset. I hope for future research but also for the sake of making coherent, fact-based policies that this problem is addressed.

An additional aspect of the relationship between ODA and migration that should receive additional attention is the exact workings of the proposed methods of the Dutch government. As explained in the introductory chapter, the Dutch government, and also the European Union, believes that ODA should be used as a carrot and a stick. By managing migration flows, countries of origin and transit countries are either rewarded or punished. For this study, it was not possible to dive into the exact workings of that relationship. It would be useful to conduct further qualitative research to find out whether this proposed mechanism is actually deployed and to what extent it results in outcomes desired by the actor disbursing ODA.

Lastly, it should not be forgotten that deploying ODA is only one of the approaches used by the EU to curb migration flows. A consequence of the securitisation of migration is also the militarisation of borders. By conducting illegal pushbacks within the borders of the EU, EU member states violate international rights and cause inhumane situations. Thorough analysis of how these approaches are carried out seems necessary to improve the quality of life for people everywhere.

This study came to the conclusion that no big relationship was found between ODA and migration. Despite the cautiousness with which I present my findings, it makes one wonder how meaningful it is to attempt to influence migration flows with ODA. Based on the analyses that were carried out in this study, I can only recommend policy makers to shift their focus to evidence-based policies. Moreover, as touched upon in the opening chapter of this thesis, I would like to propose a shift in the minds of politicians and policy makers regarding the use of ODA to the benefit of the donor. I suggest that this mindset is one that belongs to the past and that instead, we should work towards policies that benefit all.

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Appendices

Analysis 1

Appendix 1

Check for outliers. Any value higher than 3.29 constitutes a possible outlier. These were removed from the analysis. This is only the last part of the table, showing the last value below the threshold and all values above. This figure was made before removing missing data.

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|-----------|---------|---------------|--------------------|
| Valid | | | | |
| 3,20 | 1 | 0,1 | 0,1 | 98,1 |
| 3,47 | 1 | 0,1 | 0,1 | 98,3 |
| 3,71 | 1 | 0,1 | 0,1 | 98,4 |
| 3,77 | 1 | 0,1 | 0,1 | 98,5 |
| 3,82 | 1 | 0,1 | 0,1 | 98,6 |
| 4,49 | 1 | 0,1 | 0,1 | 98,8 |
| 4,50 | 1 | 0,1 | 0,1 | 98,9 |
| 5,29 | 1 | 0,1 | 0,1 | 99,0 |
| 6,35 | 1 | 0,1 | 0,1 | 99,1 |
| 6,70 | 1 | 0,1 | 0,1 | 99,3 |
| 7,19 | 1 | 0,1 | 0,1 | 99,4 |
| 7,79 | 1 | 0,1 | 0,1 | 99,5 |
| 8,27 | 1 | 0,1 | 0,1 | 99,6 |
| 8,33 | 1 | 0,1 | 0,1 | 99,8 |
| 8,64 | 1 | 0,1 | 0,1 | 99,9 |
| 8,66 | 1 | 0,1 | 0,1 | 100,0 |
| Total | 809 | 97,2 | 100,0 | |
| Missing | 23 | 2,8 | | |
| Total | 832 | 100,0 | | |

Figure 8: table showing the absolute residual values for the dependent variable.

Appendix 2

Histogram showing the normality of the total immigration variable. As can be seen, the histogram is left-skewed, impacting the robustness of the models in a negative manner.

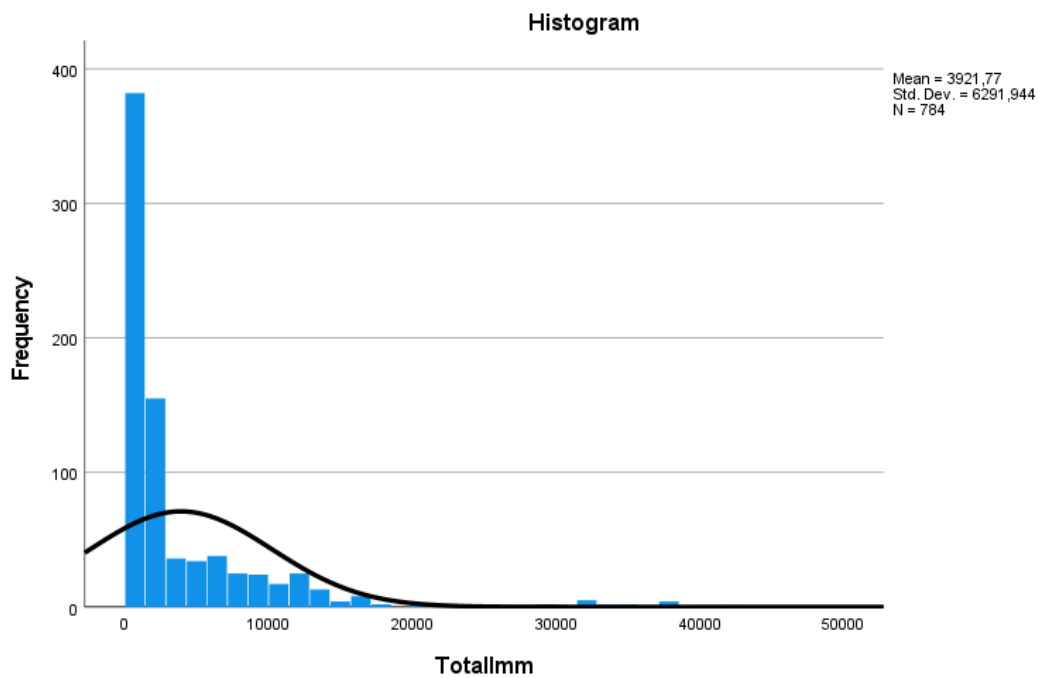


Figure 9: histogram showing the normality of the immigration variable

Appendix 3

Histogram showing the normal distribution of the residuals. These are in line with what the assumption requires.

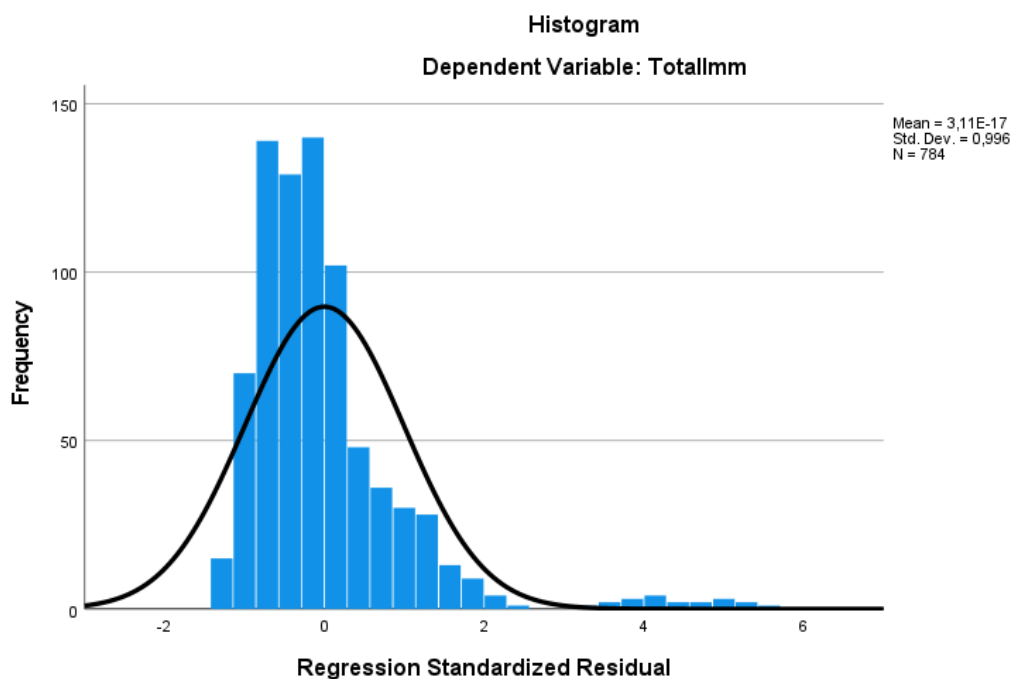


Figure 10: histogram showing the normal distribution of the residuals for total immigration.

Analysis 2

Appendix 4

Check for outliers. Any value higher than 3.29 constitutes a possible outlier. These were removed from the analysis. This is only the last part of the table, showing the last value below the threshold and all values above. This figure was made before removing missing data.

Absolute residual values for the total immigration variable

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------|-----------|---------|---------------|--------------------|
| Valid 3,11 | 1 | 0,2 | 0,2 | 98,4 |
| 3,27 | 1 | 0,2 | 0,2 | 98,6 |
| 3,29 | 1 | 0,2 | 0,2 | 98,9 |
| 3,61 | 1 | 0,2 | 0,2 | 99,1 |
| 3,66 | 1 | 0,2 | 0,2 | 99,3 |
| 3,82 | 1 | 0,2 | 0,2 | 99,5 |
| 4,88 | 1 | 0,2 | 0,2 | 99,8 |
| 6,03 | 1 | 0,2 | 0,2 | 100,0 |
| Total | 444 | 94,9 | 100,0 | |
| System | 24 | 5,1 | | |
| | 468 | 100,0 | | |

Figure 11: table showing the absolute residual values for the dependent variable.

Appendix 5

Histogram showing the normality of the total immigration variable. As can be seen, the histogram is left-skewed, impacting the robustness of the models in a negative manner.

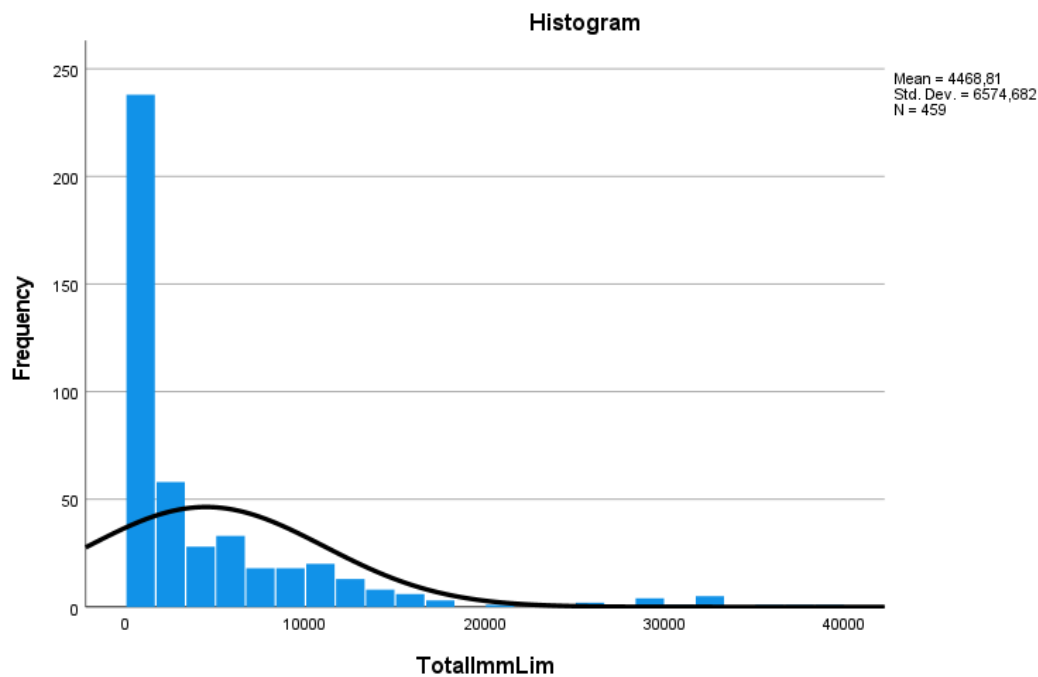


Figure 12: histogram showing the normality of the immigration variable

Appendix 6

Histogram showing the normal distribution of the residuals. These are in line with what the assumption requires.

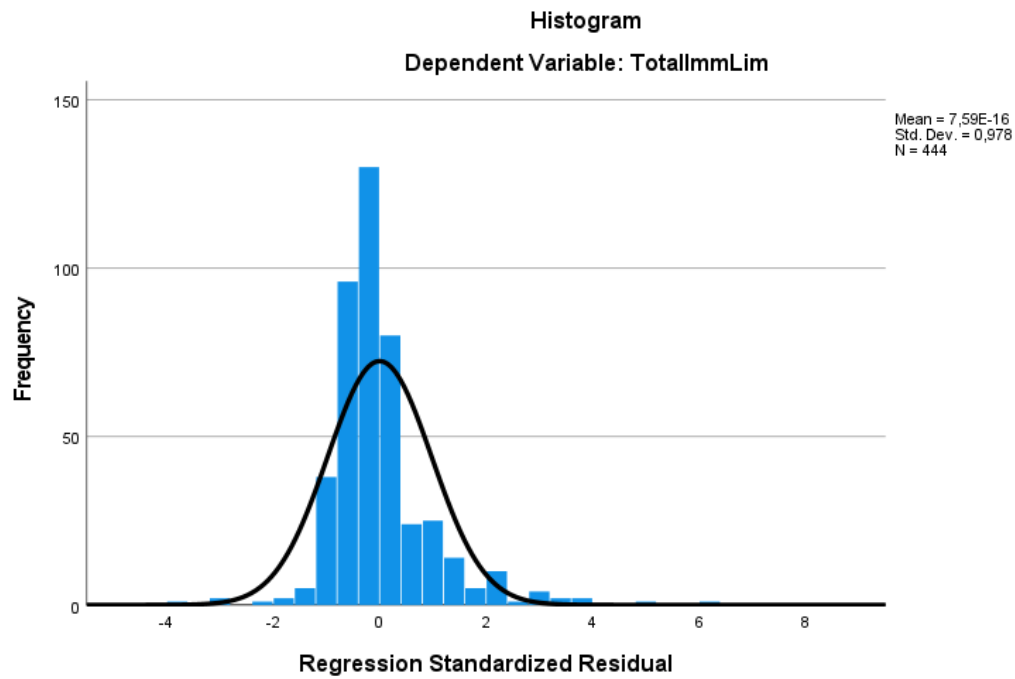


Figure 13: histogram showing the normal distribution of the residuals for total immigration.