

# A Mixed-Methods Study on the Effect of Development Aid from the European Union and its Member States on Asylum Seeker Movements

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## **Abstract**

While politicians in the European Union (EU) have proposed development aid as a tool to address the root causes of forced displacement, the scientific literature is inconclusive whether this is effective. The contrast between the consensus in European policy circles and the limited and inconsistent academic evidence on the actual impact of foreign aid on refugee and asylum seeker movements highlights the importance of further research. This dissertation addresses this gap by conducting a mixed-methods study on the impact of the Official Development Assistance (ODA) from the EU Institutions and its Member States on asylum applications in the EU. Using a Poisson-Pseudo Maximum Likelihood estimator with Instrumental Variables, this dissertation provides evidence that ODA disbursements by EU Member States to a global sample of 139 countries of origin are associated with a small decrease in asylum applications in the EU in the period 2000-2022. In addition, the econometric analysis shows that the impact of aid on forced migration depends on the income levels of the origin countries and differs between the regions it is directed to. The results of the quantitative study were presented to experts in the European Commission and the International Organization for Migration to explore, for example, why the effect of ODA from bilateral donors is different from that of the EU Institutions. The expert interviews emphasised that addressing the root causes of forced displacement is highly complex, should not be undertaken with the motivation of reducing movements to the EU, and that many aspects of this relationship need to be further explored. This dissertation therefore contributes to the empirical migration literature with novel insights that have important implications for our understanding of the effectiveness of development aid and how it impacts people on the move.

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## 1. Introduction

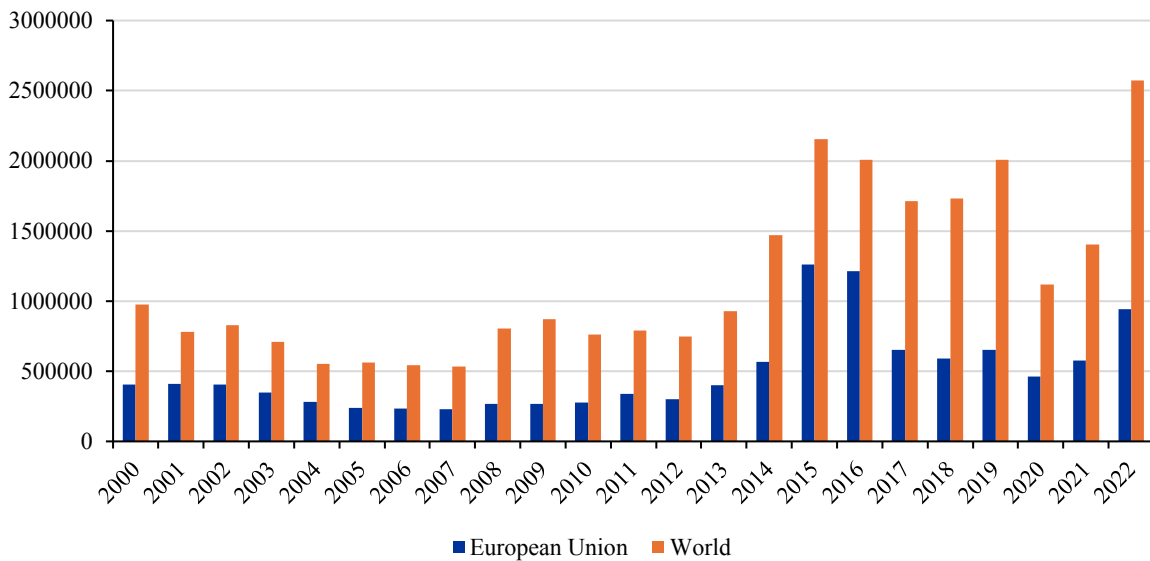
Even though the majority of refugees finds protection in low- and middle-income countries, the question of how to react to the ‘crisis’ of increased asylum applications in Europe in and after 2015 has dominated the political discourse and shaped the European responses to migration movements (UNHCR, 2024; Sachseder et al., 2022). As Figure 1 illustrates, the number of asylum applications in the European Union (EU) increased drastically during the so-called ‘European refugee crisis’, totalling over 1 million in 2015 and 2016 respectively. Likewise, the number of migrants who disappeared or died while crossing the Mediterranean Sea towards the EU also reached a peak of nearly 10,000 in 2015 and 2016 (International Organization for Migration, 2024). Among many politicians, the people arriving on Europe’s shores were deemed a threat to the European identity, cultural homogeneity and even national security (Almustafa, 2022). As the EU and its Member States could not come to an agreement on how to solve the internal dimension – the distribution of refugees within the EU – of the perceived problem, they shifted their attention to the external dimension (Zaun & Nantermoz, 2022).

In reaction to the increasing pressure for a quick and effective solution of the situation, foreign aid was framed as an effective tool to manage and stop the migration movements towards the EU (Lanati and Thiele, 2018). Development cooperation was advocated as an instrument 1) to address the drivers of displacement or 2) to be made conditional on cooperation from third countries to stop secondary movement to the EU (Dreher et al., 2019). In the first scenario, aid is allocated to the countries of origin and in the second scenario rather to the countries that host refugees or through which they would transit on their way to the EU. At the United Nations Sustainable Development Summit in 2015, the German Chancellor Angela Merkel advocated for the former, as she declared that “we must tackle the causes of flight and expulsion” (Press and Information Office of the Federal Government, 2015, para. 10). Similarly, the International Development Secretary of the United Kingdom (UK), Priti Patel, intended to use the UK’s aid budget for “creating jobs in poorer countries so as to reduce the pressure for mass migration to Europe” (Efstathiou, 2016, para. 4). Not only bilateral, but also multilateral aid funds were praised as a remedy to reduce forced as well as ‘voluntary’ migration.

The *European Agenda on Migration* followed a similar logic, by “securing external borders”, creating “a strong common asylum policy”, “a new policy on legal migration” and “reducing the incentives for irregular migration” (European Commission, 2015, para. 7). The last goal is

**Figure 1**

*Number of New Asylum Applications Registered in the EU and Worldwide*



*Note.* This Figure is the authors own creation based on the flow dataset of new asylum applications by the UNHCR (2024). In this figure “European Union” includes all countries that were part of the EU at one point during the period. Hence, countries the UK is included for the entire period to enhance legibility.

to be achieved by addressing “the root causes through development cooperation and humanitarian assistance” (European Commission, 2015, para 7). The EU’s High Representative Federica Mogherini commented, that “a real, long term response will come only from fixing the root causes; from poverty to instability caused by wars” (European Commission, 2015, para 4). A further initiative at the EU level, was the *European Union Emergency Trust Fund for stability and addressing root causes of irregular migration and displaced persons in Africa (EUTF for Africa)* who’s objective was to “contribute to better migration management as well as addressing the root causes of destabilisation, forced displacement and irregular migration” (Agreement Establishing The European Union Emergency Trust Fund for Stability and Addressing Root Causes of Irregular Migration and Displaced Persons in Africa, 2015, p. 8). The *EUTF for Africa* was established by the European Commission (EC) and the EU Member States during the Valletta Summit on Migration in late 2015, and was allocated over 5 billion Euro until it expired on the 1<sup>st</sup> of January 2022 (European Union, 2024). The presentation of aid as a means for reducing migration movements is not a recent phenomenon and had its origins in the Edinburgh European Council in 1992, before being re-emphasized in 2005 in the

context of increasing immigration to the Canary Islands (Zaun & Nantermoz, 2022). Neither was the EU's ambition to manage migration in the Sahel, which developed after the Cotonou process in 2000 (Bøås, 2021). However, this strategy was rather confined to rhetoric, and only in the course of the so-called 'European refugee crisis' was the rhetoric of addressing the root causes of (forced) migration translated into policy instruments (Zaun & Nantermoz, 2022).

However, the agreement among national and European policymakers that deploying development aid is an effective tool to reduce displacement and migratory movements stands in contradiction to the existing academic literature, which has not found conclusive results. Thus, while aid policy instruments might claim to substantially deter migration, their efficiency is rarely based on evidence (Clemens & Postel, 2018). The consensus among politicians is not reflected in the scientific literature, where this connection is rather controversial (Fuchs et al., 2023). Since the 2000s, "migration has risen to the top of the development agenda after being of marginal interest to development studies", according to Bakewell (2008). However, the investigation of the causes of forced migration is not at the forefront of the empirical migration literature, as most studies examine voluntary migration flows (Lanati & Thiele, 2024). Betts et al. (2023, p. 2670) emphasized that more "research is (...) needed to further explore the relationship between refugee migration and development". Recently, a limited number of academic studies have engaged with the influence of development aid on refugee and asylum seeker movements. However, as these studies have not found consensus on the impact, timing and underlying mechanism, further research is needed (see Dreher et al., 2019; Murat, 2020, Fuchs et al., 2023). This dissertation contributes to this growing debate by presenting a mixed-methods study, the quantitative part of which analyses the impact of Official Development Assistance (ODA) from the EU and its Member States on asylum applications in the EU between 2000 and 2022.

This dissertation adds to the literature in five ways. First, this dissertation provides causal evidence of the effect of development aid on asylum applications by estimating a gravity model of international migration using a Poisson Pseudo Maximum Likelihood (PPML) estimator in an Instrumental Variables (IV) approach. Using a large panel dataset that includes bilateral asylum applications from 139 countries of origin in 28 EU member states as well as bilateral ODA and EU ODA disbursements over the years 2000 to 2022, this dissertation shows that

bilateral aid reduces asylum applications in the EU in the short- and medium-term. The result that a 1% increase in bilateral ODA is associated with a 0.0736% decrease in asylum applications in the EU in the subsequent year is consistent with the recently published study by Fuchs et al. (2023), but contrasts with Dreher et al. (2019), who found a positive short-term effect. This dissertation further explores the time dimension of development aid's impact on asylum seeker movements, regional differences as well as the role of the economic development of the origin country.

Second, this is – to the best of my knowledge – the first quantitative study on the impact of foreign aid on forced migration that specifically estimates the effect of ODA from the EU Institutions. Previous studies have either analysed bilateral aid, aid from other bilateral donors or total ODA disbursements. The only exception are Fuchs et al. (2023), who investigate the effect of World Bank aid projects on voluntary migration and asylum applications. The choice to specifically include the EU's ODA alongside bilateral aid is motivated by the previous literature, as Dreher et al. (2019, p. 144) state that “multilateral institutions such as (...) the European Union are important providers of aid to crisis-prone areas, and the effect of their aid could well be different from what we find for bilateral donors”. Likewise, Fuchs et al. (2023, p. 38) explain that “aid projects [such as those implemented by the *EUTF for Africa*,] that are designed to target the “root causes” of migration specifically may have a more pronounced effect on migration outcomes”. Thus, by including both the aid from bilateral donors and the EU, this dissertation provides further nuance to our understanding of the development-displacement nexus. As the EU is the world's largest source of aid for displacement crises, this insight is of considerable relevance (European Commission, n.d.-a). The results of the PPML-IV estimation indicate that EU ODA does not have a statistically significant effect on asylum applications for the overall sample. However, in the short term, development aid from the EU Institutions is associated with an increase in asylum applications from countries with a GDP per capita below US\$ 2980, as well as for a sub-sample of African and Asian origin countries.

Third, this dissertation adds to the literature by providing a study with a period of analysis long enough to include the so-called ‘European refugee crisis’ and the EU's aid response. In previous influential work by Murat (2020), Dreher et al. (2019), and Clist and Restelli (2021), the period of analysis ended in 2013 and 2016 respectively, which is before and during the increases in

asylum applications in the EU in 2015-2016. Thus, these papers do not capture the contemporary dynamics in the relationship between aid and refugee migration, which changed after 2015-2016, as outlined before.

The fourth contribution of this dissertation is its focus on all EU Member States as destination countries for asylum applicants. Previous quantitative publications have typically analysed forced migration movements to and aid from members of the Organisation for Economic Co-operation and Development (OECD). While Ripollés and Martínez-Zarzoso (2021) analyse 24 European countries, they exclude some EU Member States, and include Norway. Therefore, a specific focus on the EU provides novel insights.

The fifth contribution is this dissertation's mixed methods approach, which draws on the benefits of qualitative and quantitative data, and the findings that can be achieved by it. The main results of the econometric analysis were presented to experts from the EC and the International Organization for Migration (IOM). The semi-structured expert interviews provided relevant insights into the potential mechanism that could explain increases and decrease in asylum applications due to the disbursement of development aid. In addition, the expert interviews provided important reflections on the development aid strategies of European donors and the relevance of a study focussing on South-North asylum seeker movements.

This master's thesis proceeds as follows: The next section reviews the relevant literature on aid allocation, aid effectiveness and the effect of development aid on voluntary and forced migration. Section 3 outlines the data that has been used for the quantitative estimation strategy, which is discussed in section 4. In the 5th section, the results of the PPML-IV are presented, and robustness checks are provided. Section 6 outlines the approach to the expert interviews, which are used to provide a detailed discussion of the quantitative results in the 7th section. Section 8 concludes, addresses limitations and outlines options for further research.



## 2. Literature Review

This section begins by providing an overview of the literature on aid allocation and aid effectiveness. Thereafter, the relevant quantitative literature on the effect of aid flows on ‘voluntary’ migration is outlined and the different mechanism by which aid could influence it are summarised. Lastly, the academic studies that specifically engage with the effect of foreign aid payments on forced migration are reviewed in detail. Special emphasis is given to the approach, results and data usage. Note that the literature reviewed is predominantly focused on quantitative studies due to the econometric nature of the first section of this dissertation.

The literature review is structured along the lines of ‘voluntary’ and forced migration, due to the differentiation “between refugees and asylum-seekers who are protected by International Refugee Law, and migrants who are not” (Linde, 2011, p. 89). According to the UNHCR ( n.d.), conflating the terms refugees and migrants, might have dire consequences for the safety of the former, who are in need of international protection. The New York Declaration for Refugees and Migrants (2016) outlines the importances of this distinction. However, the forced migration field has also increasingly recognised “that almost all migration has mixed motivations — a combination of compulsion and choice to differing degrees” (Van Hear, 2011, p. 17). In addition, such labels can contribute to “systematic dehumanisation”, as argued by Sajjad (2018, p. 42) and “shape understandings of worthiness and legitimacy”. While these labels might “offer the pretence of a ‘value-neutral’ categorisation”, they are far from neutral and occur amidst a tension between the “recognition of the need for asylum for growing numbers of people forcibly displaced and, simultaneously the intensification of measures to ensure the ‘outsider’ cannot reach western shores” (Sajjad, 2018, p. 42). Foreign aid needs to be understood as part of these dynamics. Why then differentiate? Many quantitative publications face a considerable shortcoming, according to Allen et al. (2018, p. 225) “because they typically combine all migrants into an undifferentiated pool of people who in practice have very different characteristics and were admitted to the country for different reasons”. Moreover, the quantitative literature rarely addresses the dynamics of displacement in their models of migration, and a better understanding of the political economy of forced migration requires a focus on its specific dynamics.

## **2.1. Literature Review: Aid allocation, aid effectiveness**

The differing purposes and situations in which different types of foreign aid are used indicate the impact that development aid, which is the focus of this thesis, could have. In general, a distinction is made between humanitarian and development aid based on their rationale, approaches and the actors with whom they work (Lie, 2020). The primary objective of humanitarian aid is to immediately respond to the consequences of crises such as violent conflicts, natural catastrophes or famines (Dreher et al., 2019). ODA, on the other hand, is provided with the intention to support the economic development as well as the general welfare of the recipients countries (Coppard et al., 2013). Whereas humanitarian aid operates apolitically and impartially, development aid has an explicitly political agenda (Lie, 2020). Moreover, the former frequently bypasses the government in the host country, while the latter cooperates with the state (Lie, 2020). Nyberg-Sorensen et al. (2002, p. 5) note that development aid is typically allocated “to the well performing countries and humanitarian assistance to the crisis countries and trouble spots”. Humanitarian aid is significantly more prevalent in areas facing violence and insecurity (Zürcher, 2017). However, this comes with a shortcoming, as “development aid is more effective than humanitarian assistance in preventing violent conflicts, promoting reconciliation and democratization” (Nyberg-Sorensen et al., 2002, p. 6). Humanitarian aid and development aid could therefore influence refugee movements through different channels.

Foreign aid is mainly allocated based on the strategic considerations of the donor states. The extensive literature on aid allocation has established that humanitarian and developmental considerations are clearly secondary to the economic, strategic and political interests of donors when deciding where to provide bilateral aid (Isopi & Mavrotas, 2009). More specifically, “trade relations, political similarity, geographical distance, military expenditures or colonial ties” have been found to shape the allocation of bilateral aid (Czaika & Mayer, 2011, p. 458). Among others, one central donor motive is to see if foreign aid is successful in reducing immigration (Dreher et al., 2024). A statement by the former Austrian foreign minister, Sebastian Kurz, illustrates this consideration: “We need to join forces to stop the irregular flow of migrants[,] to address the root causes of migration, especially by increasing our assistance to countries of origin” (Federal Ministry of the Republic of Austria: European and International Affairs, 2016). However, it cannot be assumed that public declarations that aid will be used to

fend off migration are actually reflected in aid commitments or even disbursements (Clemens & Postel, 2018). In migration policy, Czaika & De Haas (2013, p. 494) identify significant “policy gaps” between discourse, policy implementation and efficacy. Thus, the proliferation of such statements might not actually translate into more aid for migration.

Several studies have found that donor countries respond to migration and refugee movements with bilateral aid. The highly cited paper by Czaika and Mayer (2011), found that from 1992 until 2003, Western donor countries predominantly provided development aid to the origin countries of asylum seekers, rather than the countries of first asylum. Besides this, international refugee movements received more aid than internal displacement crises (Czaika & Mayer, 2011). Most importantly, they found that if asylum seekers physically reached the donor countries and claimed asylum there, this triggered the biggest bilateral aid responses to the sending countries (Czaika & Mayer, 2011). Therefore, the authors conclude that “donor states have a stronger reaction towards migration movements the more they are directly affected by a refugee outflow” (Czaika & Mayer, 2011, p. 462). For the period from 1993 until 2008, Bermeo and Leblang (2015) estimate that the stock of migrants residing in a donor state increases the amount of aid their country of origin receives from that donor. Thus, they conclude that “donors incorporate concerns about migration when making decisions on foreign aid” (Bermeo & Leblang, 2015, p. 652). In a case study on Spain, Vázquez and Sobrao (2016) observe that a rise in a particular migrant population increases the likelihood that their country of origin receives aid from Spain as well as how much ODA they receive. This resonates with the concept of *migration management aid* which Norman and Micinski (2023, p. 58) define “as a specialised form of foreign aid from donor countries or international organisations to countries of origin or transit with the purpose of controlling migration”.

Furthermore, several recent papers specifically focusing on the reaction to the so-called ‘European refugee crisis’ have reported changes in the EU’s aid budget due to the increased immigration. Arroyo (2019) even reports that since the middle of the 2000s, the EU has increasingly targeted the major host countries and countries of origin of forced migrants when allocating aid. “EU policies aiming to address the root causes of migration had suffered from a gap between rhetoric and action”, according to Zaun & Nantermoz (2022, p. 511), but the “so-called ‘refugee crisis’ of 2015 arguably bridged this gap, leading to the creation of a policy

instrument that prioritized addressing ‘root causes’”. Furthermore, Szymańska & Kugiel (2020, p. 71) confirm this, as “economic and financial means (aid, investments, trade) constituted an important element of the EU response to the 2015 refugee and migration management crisis”.

However, studies have also produced results that challenge this connection. The aforementioned paper by Bermeo and Leblang (2015) also included regression analyses in which refugee populations (instead of migrant stocks) were used as the independent variable. The authors report a negative impact of the size of a refugee stock hosted in a donor country on aid allocation, as refugees, unlike migrants, might not lobby for their origin country to receive more aid (Bermeo & Leblang, 2015). Following a different approach, Clemens and Postel (2018) disaggregate aid payments, trying to determine whether aid that is meant to affect the root causes of migration is allocated differently. The authors find that “aid targeted for sectors viewed as migration relevant does not appear to flow in larger measure to countries viewed as migration-relevant” (Clemens & Postel, 2018, p. 671). This would support the argument that donor states claim to be using development aid to curb displacement and irregular migration to appease their constituencies rather than actually changing their practices.

However, such a view contradicts the evidence cited above as well as the literature that suggests that countries of origin and transit use migration and refugee movements to extract concessions from Western states. Greenhill's (2008, p. 10) concept of *Coercive Engineered Migration*, “in which (real or threatened) outflows are used to induce (or prevent) changes in political behavior – that is, to compel or deter – and/or to extract economic side-payments from a target state or states” is one prominent example. Similarly, according to the theory of *Migration Diplomacy*, countries of origin and transit can use their position to link migration issues to the achievement of other diplomatic goals, as for example economic concessions (Adamson & Tsourapas, 2019). The 81 reported cases in which migration has been weaponised by state actors – from Libya, Turkey and Albania to Cuba and Pakistan – and the overwhelming success in obtaining (often financial) benefits from Western states as a result, provide further evidence of this link (Greenhill, 2022). Thus, it is apparent that foreign aid payments are likely influenced by migration and refugee movements – either as a tool for donors to influence migration movements, to reduce the occurrence of displacement or for origin and transit countries to enforce financial transfers. But is aid actually successful in achieving its goals?

The inconsistent findings of the aid effectiveness literature provide an indication of how ambiguous the impact of aid on voluntary and forced migration might be. The evidence base has been described as “inconclusive” (Murat, 2020, p. 81), “mixed”, (Qian, 2015, p. 277) and “far from well established” (Clemens and Postel, 2018, p. 673). This is particularly noteworthy for this dissertation, as “there is no direct link between aid and migration”, as Lanati & Thiele (2018, p. 60) note, but “aid is expected to affect the determinants of migration”. Qian's (2015) widely cited review paper illustrates the controversies within the aid effectiveness literature. Although foreign aid became a central policy instrument of high-income countries to enhance the economic development, the welfare of the population and the institutional quality of low-income countries after the WWII, the vast literature is divided on whether this actually materialized (Qian, 2015). While Galiani et al. (2017) and Clemens et al. (2011) find a positive and sizeable effect of development aid on economic growth, Dreher and Langlotz (2020) find no statistically significant effect. Based on a meta-analysis of 97 econometric studies, Doucouliagos and Paldam (2009, p. 433) even conclude that “after 40 years of development aid, the preponderance of the evidence indicates that aid has not been effective”. When it comes to political rights and human rights, the results on the impact of aid are often equally contrasting. A study by Ahmed (2019) demonstrates that foreign aid from the United States leads to a deterioration in political rights in the countries receiving the aid. Carnegie & Marinov (2017), on the other hand, show that aid positively influences the human rights situations in aid recipients due to conditionality from the side of the donors.

As the focus of this dissertation is on asylum seeker movements, the relationship between aid and conflict, which is a driver of forced migration, is particularly relevant. Prominent studies, such as Collier & Hoeffler (2002), have established an indirect link between aid and conflict, which comes from the positive impact of aid on economic growth. Thus, foreign aid leads to increased economic growth and thus to a lower risk of conflicts (Collier & Hoeffler, 2002). Furthermore, Ahmed & Werker (2015, p. 181) provide evidence that “oil-price induced foreign aid (...) inflows reduced the incidence of civil war in developing, non-oil producing Muslim countries” from the 1980s until 2000. In contrast, Clemens & Postel (2018, p. 674) stress that “the literature offers scant evidence that aid projects have been a systematically effective tool to mitigate civil conflict that could spark emigration”. In a systematic review of 19 studies covering various countries, regions and types of aid projects, Zürcher (2017) provides a comprehensive overview of the academic publications on the causal relationship between

development aid and violent conflict. “The evidence for a violence-dampening effect of aid in conflict zones is not strong”, according to Zürcher (2017, p. 506), rather “aid in conflict zones is more likely to exacerbate violence”. Similarly, Sardoschau & Jarotschkin (2024) show that Chinese aid projects contributed to an increase in conflict incidents in Africa, especially between non-state actors and the government. Moreover, Adam and Tsarsitalidou (2022, p. 1), focusing on aid from the World Bank, find that from 1989 to 2016 “foreign aid may (...) increase conflict over lootable aid rents, and so increasing events of extreme aggression”. Thus, the disagreement within the research on aid effectiveness foreshadows the debate in the quantitative migration literature and highlights the need for further research.

## **2.2. Literature Review: Development Aid and Voluntary Migration**

So far, the empirical migration literature has identified four potential mechanisms by which aid could influence voluntary migration. The first transmission channel is based on neoclassical economic theory and states that people choose to migrate to another country due to differences in economic conditions (e.g. income) between their origin and potential destination country in an attempt to maximise their utility (Borjas, 1989). Aid could— if successful – increase incomes in the countries of origin, and thus reduce the income differential vis-à-vis the potential destination country (Böhning & Schloeter-Paredes, 1994). In this sense, foreign aid would reduce the need to emigrate, as economic conditions in the home country would improve (Böhning & Schloeter-Paredes, 1994). At first glance, this theory might not suit as a framework for an analysis of the effect of aid on asylum applicants’ international mobility, as asylum seekers are seeking international protection in their destination, owing to experiences of war, persecution or the violation of their human rights (UNHCR, n.d.-b). However, neoclassical theory also mentions international differences in political conditions as factors determining migration (Borjas, 1989) and aid as a tool to improve political and social circumstances in the countries of origin (Böhning & Schloeter-Paredes, 1994). Therefore, neoclassical theories, even if they follow a simplistic schema, might be applicable to some extent to an analysis of the interaction between aid and asylum applications.

The second channel, which originates from theories on the migration transition and finds an inverse U-shaped relationship between development and migration, stands in contrast to the neoclassical models. Zelinsky (1971) first described the pattern that emigration initially

increases and later decreases with rising socioeconomic development with the term *mobility transition*. Due to the costs and benefits of migration, the relationship between economic development and migration takes a non-linear form – as opposed to a ‘more development, less migration pattern’ (Skeldon, 1997). Therefore, in countries with lower income levels, foreign aid helps to ease the budgetary constraints that impair people’s ability to emigrate and stimulate more emigration in the short and medium term (De Haas, 2007). Only in countries with a per capita income of more than 6,000 to 8,000 dollars in purchasing power parity (PPP) will increased economic prosperity result in lower emigration, i.e. only at this level does the slope of the inverted-U curve fall again (Clemens, 2014). While the “Budgetary Constraint Channel” is more relevant in countries with lower per capita income levels, the “Income Channel” predominates in wealthier countries (Lanati & Thiele, 2018, p. 60). If the “Income Channel” prevails in wealthier countries, aid further increases incomes and reduces the potential benefits of emigrating (Lanati & Thiele, 2018, p. 60). While this observation of a *migration hump* (Martin & Taylor, 1996) is primarily concerned with economic drivers of migration, it might also have implications for the impact of aid on asylum applications. First, budgetary constraints could similarly prevent people fleeing war and persecution from leaving their country or even travelling to the EU. Secondly, if people’s incomes are sufficiently high and even rise further due to aid payments, overcoming civil war or political oppression could potentially be eased and lead to fewer asylum applications. Thus, the migration hump theory suggests that the impact of aid on asylum applications may vary depending on the country's economic development.

Third, foreign aid – especially bilateral aid – might influence migration via an information channel. Rather than economic factors, bilateral social ties and migrant networks between countries are determining international migration (Massey, 1990). Bilateral aid attracts migration from the aid recipient countries due to contact networks and the availability of more information about the country providing the aid (Menard & Gary, 2018). The improved information about the donor / potential destination country thus reduces the transaction costs associated with migration, which generates an *attraction effect* (Berthélemy et al., 2009). Therefore, the impact of aid on migration through the information channel is specific to each donor (Marchal et al., 2022). This suggests that the more aid is provided, the higher is the likelihood that personal contacts between aid workers and potential migrants will be established during the realisation of a development project, as there would be more projects (Restelli, 2021). It is very plausible that such a dynamic also arises in situations of forced displacement.

However, the informational channel assumes that aid workers and potential migrants build positive relationships. But the opposite could also be the case, so that an unpleasant interaction has a deterrent effect. The information disseminated about the destination country could also make a potential asylum seekers' attempt to flee to that country appear hopeless.

Fourth, an instrumentation channel, where aid is made conditional on changes in the recipient country's emigration policy has been proposed. While the effect of foreign aid is not specific to certain donors based on the neo-classical and migration transition transmission channels, the instrumentation channel is donor-specific, as aid's impact on migration depends on who strategically provides the aid (Marchal et al., 2022). In an effort "to discover the hidden agenda behind foreign aid", Azam and Berlinschi (2009, p. 147) argue that an "empirically significant trade-off between the aid flows delivered by donor countries and the inflows of migrants that they receive from developing countries" is probable. With a focus on refugee mobility, Dreher et al. (2019) find two very relevant results that support this channel. First, "aid changes recipient countries' repatriation policies in the donors' favor" in the short term (Dreher et al., 2019, p. 128). Thus, rather than inhibiting the emigration of refugees, aid facilitates their return to the countries of origin. Secondly, development aid for the neighbouring countries of the refugees' countries of origin leads to less secondary refugee migration and especially to the countries providing the aid (Dreher et al., 2019). They conclude that "donors successfully use their aid to induce countries bordering the refugees' homes to block refugee flows and deviate them away from the donor countries" (Dreher et al., 2019, p. 129). In this context, aid is not provided to the countries of origin, or dedicated to address the 'root causes' of forced migration, but to neighbouring countries. The quantitative migration literature has yet to fully explore the instrumentation channel, particularly in relation to development aid to countries of origin.

Overall, the results of the empirical literature examining the impact of aid on 'voluntary' migration are inconclusive, illustrating the need for further research. Several authors report that only a few quantitative studies have investigated the overall effect of aid flows on migration using cross-country regression analyses, and that this connection is still rather under-researched (see e.g. Clemens & Postel, 2018; Lanati & Thiele, 2018). Earlier publications, like Berthélemy et al. (2009) report that globally, aid increases migration from developing countries to OECD Member States on average. For 48 countries in sub-Saharan Africa, Belloc (2015) also finds



that the provision of ODA contributes to greater migration outflows. Recently, several publications reported the opposite effect. While previous papers relied on data on migrant stocks, Lanati & Thiele (2018) use flow data, which is better suited to assess changes in migration movements. Analysing migration flows from 141 aid-receiving countries to 26 donor countries between 1995 and 2014, they show that total aid to the country of origin decreases emigration rates, which “even holds for the poorer part of recipient countries, which suggests that the budgetary constraint channel does not play a significant role in shaping migration decisions” (Lanati & Thiele, 2018, p. 59). Studies breaking down the different kinds of aid have found that the provision of rural development aid (Gamso & Yuldashev, 2018a) as well as governance aid rather than economic or social aid (Gamso & Yuldashev, 2018b), results in less emigration out of developing countries. Furthermore, Fuchs et al. (2023, p. 4) present results that the announcement of “a new World Bank aid project leads to a one percentage point reduction of individual migration preferences” in the short run, which can be attributed to better expectations for the future.

Two recent studies have focused on the effect of aid on border apprehensions in Europe. For Italy from 2003 to 2016 (Clist & Restelli, 2021) and for Greece, Italy and Spain from 2009 to 2016 (Restelli, 2021), the authors analyse whether aid flows to 147 countries of origin have influenced irregular migration to these donor countries. In the case of Italy, the results showed that aid tends to have no statically significant effect and if it is significant, it is very small (Clist & Restelli, 2021). The impact of bilateral aid is positive and significant for the three destination countries Greece, Italy and Spain, but also very low (Restelli, 2021). If aid is provided to countries with higher incomes, a 1% increase in bilateral ODA is found to lead to a 0.097% decline in border apprehensions (Restelli, 2021). These findings are very insightful, as “inferences on measures of regular migration cannot provide reliable evidence to assess the impact of aid at deterring irregular flows” (Restelli, 2021, p. 929). This argument can be applied to asylum seeker and refugee movements as well, as “practically all of today’s refugees were yesterday’s irregular migrants”, according to Clist & Restelli (2020, p. 1288). Still, it is important to note that the period of analysis of both studies ends before the so-called ‘European refugee crisis’, which means that they do not capture the rapid decline in asylum applications in the EU after 2016 (UNHCR, 2024).

### **2.3. Literature Review: Development Aid and Forced Migration**

While the empirical research on the impact of development aid on voluntary migration is still in its infancy, even fewer quantitative studies specifically examined its impact on cross-border forced migration. Table 1 summarises the eight studies that have engaged with the effect of development aid on asylum applications or refugee ‘flows’. Dreher et al. (2019, p. 128-9) note that earlier research did not adequately establish causality, making theirs “the first study to provide causal estimates of the effects of aid on refugees”. Thereafter, while confined to only five other studies, a debate on the quantitative effect of ODA on forced migration emerged. Lanati & Thiele (2024, p. 929) summarise pointedly, that these papers address, “the question of whether prospective countries of asylum can at least partly offset the push factors prevailing at origin and dampen the outflow of refugees from developing countries by providing foreign aid”. As listed in table 8, these studies differ in their choice of destination countries, independent variables, the time period and most importantly, in their empirical results. This dissertation contributes to this literature in numerous ways, as will be outlined below.

As in the case of voluntary migration (see Lanati & Thiele, 2018), aid will only have an indirect effect on forced migration. Therefore, a review of the causes of displacement and asylum seeker mobility is an important first step. In an early study, Neumayer (2005, p. 389) outlines that “political oppression, human rights abuse, violent conflict, and state failure” as well as “economic hardship and economic discrimination against ethnic minorities lead to higher flows of asylum seekers”. In contrast, Moore & Shellman (2007, p. 831) report that economic factors are only positively associated with refugee flows if the countries share a border, but that “refugees flee violence, and their destination choice is overwhelmingly near-by, where others like them have gone in the past”. Asylum applications in OECD countries fall with a higher GDP per capita in the countries of origin, according to Hatton and Moloney (2017), but are primarily triggered by political and social factors such as terror, human rights violations and oppression in the country of origin. Davenport et al. (2003) take threats to an individual’s integrity as the starting point, and find that genocidal actions by the government, dissident conflicts and civil wars, among others, force people to leave their homes. Thus, aid could influence political (e.g. war, genocide, persecution), economic (e.g. GDP per capita or unemployment) as well as social (e.g. migrant networks) factors that drive forced migration and subsequently influence asylum applications.

**Table 1***Summary of the quantitative literature on the effect of aid on refugee mobility*

	<b>Publication</b>	<b>Dep. Variable</b>	<b>Independent Variable</b>	<b>Period</b>	<b>Destination</b>	<b>Results</b>
1)	Lanati & Thiele (2024)	Refugee stocks	Total ODA and economic, social, education, health & governance ODA	2004-2019	117 Global South	Total ODA to countries in the Global South <i>increases</i> refugee flows towards there Education aid to potential host works as <i>pull factor</i>
2)	Fuchs et al. (2023)	Asylum applications	World Bank Aid Projects	2008-2019	25 OECD Countries	Short-term <i>reduction</i> Negative effect fades out in the long run
3)	Ripollés & Martínez-Zarzoso (2021)	Asylum applications	Bilateral ODA and ODA-Governance quality interaction term	1996-2018	24 European countries	ODA only <i>lowers</i> asylum applications if the quality of governance in recipient country is sufficiently good
4)	Clist & Restelli (2021)	Asylum applications	Bilateral ODA and Total ODA	2003-2016	Italy	<i>No</i> significant effect of total aid <i>Small Positive</i> effect of bilateral aid
5)	Murat (2020)	Asylum applications	Bilateral ODA & ODA from other 13 OCED	1993-2013	14 OECD Countries	Bilateral aid <i>decreases</i> applications from poorer countries in the short-term & long-term From medium income <i>increase</i> applications slightly
6)	Dreher et al. (2019)	Refugee flows	Bilateral ODA from 28 OECD donors	1976-2013	28 OECD Countries	<i>Positive</i> short-term effect & <i>negative</i> after +12 years Aid to origin neighbours reduces flows to OECD
7)	Neumayer (2005)	Asylum applications	Aid as % of GDP	1982-1999	15 EU + NO and CH	<i>No</i> effect
8)	Thielemann (2004)	Asylum applications	ODA as % of GDP	1985-1999	20 OECD Countries	<i>Positive</i> effect

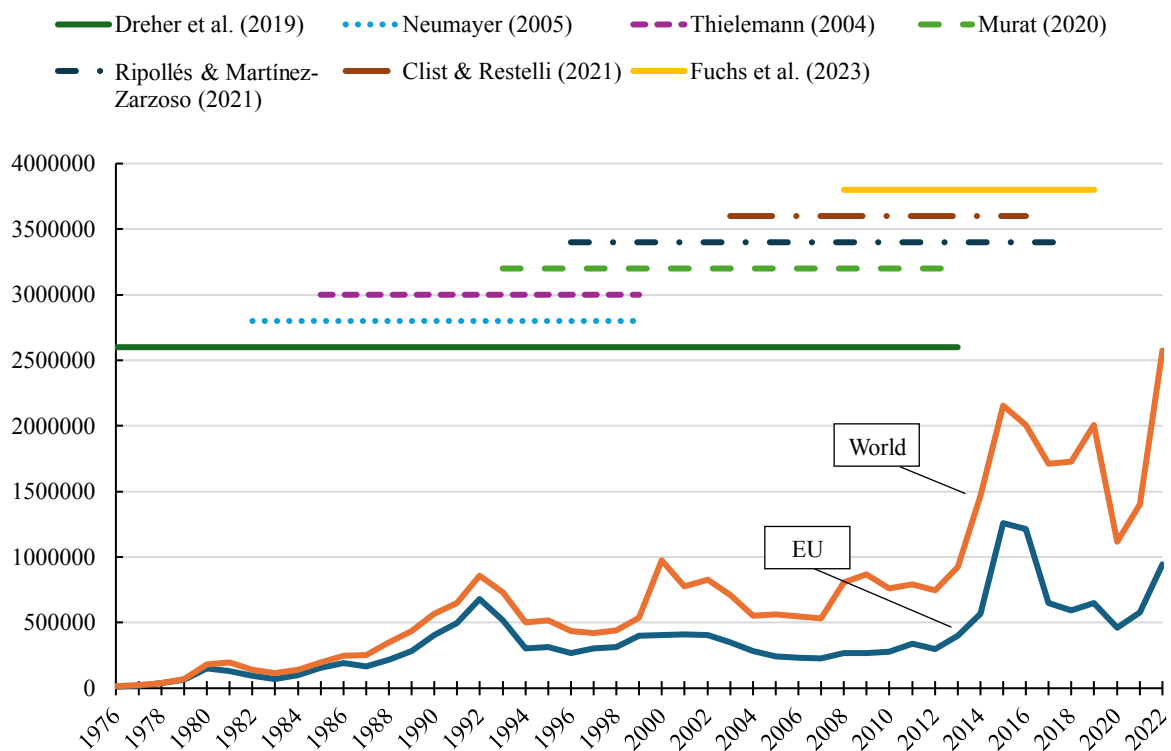
Although the literature to date has focussed predominantly on South-North refugee movements (Lanati and Thiele (2024) are the exception), the EU has not been treated as a specific group of destination countries yet. Conceptually, most studies develop their research design departing from the OECD as the group of countries providing ODA and thus as the destination countries of asylum seekers. However, unlike the EU, the OECD is not a supra-national entity, but only an international organisation. Despite relevant criticism regarding its quality (see for example International Rescue Committee, 2024), it can be observed that “the European Union has progressively communitarised its migration policy” in the recent years (Lutz, 2024, p. 313). This makes an analysis of the relationship between aid and forced migration in the context of the EU particularly relevant. Furthermore, while looking at OECD countries provides an insight into asylum applications to aid-providing countries in general, one drawback of this is that European countries are considered alongside Korea, Japan, Australia, Canada and the US, which may face different mobility dynamics. The study that resembles this dissertation closest in terms of choice of destination, is by Ripollés and Martínez-Zarzoso (2021). However, they exclude Bulgaria, Croatia, Cyprus and Malta, who are EU Member States but not part of the OECD. Still, these states also provide ODA (OECD, n.d.) and could benefit from the aid that is channelled through the EU to origin countries of asylum seekers. Besides, Ripollés and Martínez-Zarzoso (2021) only analyse asylum applications from countries in Africa, and not from other regions in the world. This leaves room for further research.

As illustrated in Figure 2, the quantitative literature on the effect of aid on forced migration has not fully captured the aftermath of the so-called ‘European refugee crisis’ of 2015 and 2016 in their studies. Especially, the effect of the foreign aid response to the increased asylum applications in the EU, like the *European Agenda on Migration* of spring 2015 or the *EUTF for Africa* which operated from late 2015 until 1<sup>st</sup> of January 2022, are not completely covered by the current literature (European Commission, 2015; European Union, 2024). In four of the seven studies, the period of analysis even ends before the onset of the so-called ‘European refugee crisis’. Dreher et al. (2019, p. 144) also note that “aid given directly in response to the crisis could thus well be more effective than what (...) [they] report”. Clist and Restelli (2021), who only focus on asylum applications to Italy, end their study already in 2016, when over 1.2 million asylum applications were filed in the EU (UNHCR, 2024). The last years of analysis for Ripollés and Martínez-Zarzoso (2021) and Fuchs et al. (2023) are 2018 and 2019 respectively. Thus, they neither capture the full duration and effect of the *EUTF for Africa*, nor

the recent increase in asylum applications in the EU. Since the period studied by Fuchs et al. (2023) extends furthest into the present, their results offer a good comparison to the findings of this dissertation. However, as they are specifically concerned with World Bank aid projects, their work differs sufficiently from this dissertation in terms of time period, destination and types of aid included so as to provide new insights.

**Figure 2**

*Dynamics of asylum seeker movement to the EU and worldwide covered by academic studies*



*Note.* The graph is the authors own creation based on the flow dataset of new asylum applications by the UNHCR (2024) and information about the period of analysis covered by the studies mentioned in the graph. The horizontal lines represent the period of analysis of the indicated papers. Data availability for asylum seeker flows is fragmented for the first decades in the graph and should therefore only be treated as illustrative.

Furthermore, the contrasting results of the literature on the impact of aid on asylum seeker and refugee movements highlight the need for more research. Nearly all previous studies have relied on ODA as the main independent variable. While Neumayer (2005) finds no statistically significant effect of the aid share in the GDP of the origin country, Thielemann (2004) observes

that a higher aid share in the GDP of the destination country positively influenced the arrival of asylum seekers in 20 OECD countries. In more recent and econometrically advanced studies, mainly two forms of aid have been included: 1) bilateral ODA from specific donors to the recipient country and 2) total ODA from either all, or some other donors. Their impact on asylum seekers and refugee movements is found to be different, and even within the two kinds of aid measurements, the results are varied. In a comprehensive study covering 28 OECD countries and 141 countries of origin in the period 1976-2013, Dreher et al. (2019) conclude that an increase in bilateral aid leads to an increase in refugees flows to OECD countries in the first three years, but fewer arrivals after 12 years. For the case of Italy, Clist and Restelli (2020, p. 1292) provide a similar finding, as “a 1% increase in Italian aid is associated with a 0.017% increase in the number of asylum applications” in the next year.

However, these results stand in contrast to other studies that focus on bilateral aid. Murat (2020, p. 81) reports that “the relation of bilateral aid with asylum inflows varies with average income in the origin country”. Whereas past bilateral aid disbursements have a negative impact on asylum applications from low-income countries, the opposite is the case for middle-income countries (Murat, 2020). Ripollés and Martínez-Zarzoso (2021) emphasize that depending on the governance quality in the African country receiving the aid, its effect on asylum applications in Europe varies. If African countries with rather low governance quality levels receive more bilateral aid from European donors, this contributes to a higher number of asylum applications – and vice versa, in the case of better governance quality (Ripollés & Martínez-Zarzoso, 2021). These results also hint at the potential mechanism behind the effect of aid on forced migration. While not focused on bilateral aid, Fuchs et al. (2023, p. 34) find “a decrease of around 8.2 percent in [asylum seeker] flows for the average annual World Bank disbursement of 130 million US\$” in the short term, but no effect thereafter. Thus, providing the opposite finding to Dreher et al. (2019).

For total aid, the results are similarly inconclusive. Aid from all OECD donor countries other than Italy does not have an effect on asylum applications in Italy (Clist & Restelli, 2021). Similarly, Dreher et al. (2019) only find a statistically significant negative effect of total aid on worldwide refugee outflows after over eleven years. Murat (2020, p. 81), on the other hand, identifies “negative cross-donor spillovers” as asylum applications fall in OECD countries due

to aid transfers from other donors. In a highly relevant study, Lanati and Thiele (2024) find that refugees increasingly flee to certain nearby countries when foreign aid by OECD donors is channelled towards social infrastructure, especially education. However, this “analysis does not allow to assess whether making developing country destinations more attractive would reduce pressure on asylum systems in high-income countries” (Lanati & Thiele, 2024, p. 946). As the other studies listed in Table 1 did not include total aid in their models, the impact of non-bilateral aid disbursements deserves further academic attention.

Moreover, aid from non-governmental donors, such as philanthropic organisations, international organisations or supranational bodies such as the EU, have so far been overlooked in the quantitative literature on the aid-forced migration relationship. With the exception of Fuchs et al. (2023), who provide relevant insights on the effect of aid projects from the World Bank, no other studies have on asylum seeker or refugee movements specifically engaged with non-governmental aid. However, the importance of examining the impact of multilateral aid, and aid from the EU specifically, was emphasised in the literature. “Multilateral institutions such as UNHCR or the European Union are important providers of aid to crisis-prone areas” according to Dreher et al. (2019, p. 144), “and the effect of their aid could well be different from what we find for bilateral donors”. Likewise, Fuchs et al. (2023, p. 38) explain that as World Bank projects “are not designed to reduce migration, such as those implemented by the EU Trust Fund for Africa, (...) it is reasonable to interpret our results as conservative”. Therefore, the authors expect that “aid projects that are designed to target the “root causes” of migration specifically may have a more pronounced effect on migration outcomes” (Fuchs et al., 2023, p. 38). Further research is needed to establish this connection – an effort this dissertation undertakes.

### **3. Data**

This dissertation studies the effect of bilateral ODA from the EU Member States and ODA from the EU Institutions on asylum applications from 139 countries in 28 EU countries from 2000 to 2022. The quantitative estimation technique – a PPML with an instrumental variable approach – makes use of the benefits of a panel dataset with 87,802 observations for 14 different variables (Appendix A). An overview of the variables is provided in Table 4.

The section begins by outlining the rationale behind the case selection and the choice of period. Thereafter, descriptive statistics on the dependent variable and the independent variables are presented and their sources, estimation and utility are discussed. Finally, the ten different control variables used in the regression analysis are explained.

#### **3.1. Case Selection and Period of Analysis**

This dissertation addresses the previously outlined gap in the quantitative literature by considering all EU Member States as the destination countries of asylum seekers, and as the donors of ODA. In this sense, the research design is Eurocentric and only reflects a certain part of the global refugee movements. Nevertheless, in view of the tremendous policy attention, the associated sums of money and the major humanitarian consequences for people on the move (see e.g. EC, 2015; Sachseder et al., 2022; IOM, 2024), a better scientific understanding of this relationship is needed. The period of analysis has been set to 2000-2022 as this includes the run-up to the so-called ‘European refugee crisis’ as well as its aftermath. In addition, this allows for an inclusion of all EU Member States, so that more information and thus a better understanding of the dynamics are available. Table 2 provides the timeline in which countries joined and left the EU, and how many countries are part of the EU at each time. As Table 2 shows, at least 25 states were part of the EU for most of the time. From 2013 to 2020 there were 28, and then 27 again. In the main regressions, all 28 states, which have been part of the EU at one point are included. Robustness checks are carried out in section 5.2, where the period analysed is reduced to the years in which 28 countries formed the EU or where the case selection is reduced to omit the EU Member States that are not members of the Development Assistance Committee (DAC). Besides, the year 2022 was the latest year in which data on asylum applications and ODA is available.



A further consideration is related to the trade-off between including all members of the OECD's DAC and focusing on the entire EU. While most of the EU Members are part of the DAC, Croatia, Cyprus, Latvia and Malta are not (OECD, n.d.-b). Moreover, Bulgaria and Romania are only participants at the DAC (OECD, n.d.-b). Still, the majority of the 32 members of the DAC are also part of the EU. The additional members of the DAC are Australia, Canada, Iceland, Japan, Korea, New Zealand, Norway, Switzerland and the United States. The reason not to include these states into the regression analyses is due to the motivation of this study, to explore the dynamics specific to forced migration movement towards the EU, to investigate the aid response to the so-called 'European refugee crisis' and to highlight the role of ODA from the EU Institutions. The effect of EU ODA asylum seeker movements to the other DAC members might be considerably different than for the EU Member States, due to the nature and motivation of the EU aid projects. For example, the *EUTF for Africa* was created to support "better migration management as well as addressing the root causes of destabilisation, forced displacement and irregular migration" in the context of movements to the EU, and not to New Zealand, Canada or Japan (Agreement establishing the EUTF for Africa, 2015, p. 8)

**Table 2**

*Timeline of European Union Membership*

<b>Year</b>	<b>Event</b>	<b>No. of EU States</b>
2020	United Kingdom leaves the EU (1 <sup>st</sup> of February)	27
2013	Croatia joins	28
2007	Romania and Bulgaria become part of the EU	27
2004	Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia, and Slovenia join	25
1995	Austria, Finland, and Sweden join	15
1986	Spain and Portugal become members of the EU	12
1981	Greece joins the EU	10
1973	The United Kingdom, Ireland and Denmark join the EU	9
1957	Belgium, Luxembourg, the Netherlands, France, Italy and Germany created the predecessor organisation of the EU	6

*Note.* This table is the authors own creation, based on information from the European Commission (n.d.)

This dissertation analyses the interaction of aid flows to and asylum applications from 139 countries. This global selection comprises countries that are both recipients of ODA (Russia for example is not, and therefore excluded) and countries of origin of asylum seekers in the EU. An overview of the origin countries included in this study is provided in Table 3. Countries are listed in alphabetical order by region according to the classifications of the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) (Mayer & Zignago, 2011)

**Table 3**

*Countries of Origin of Asylum Applicants / Recipients of ODA*

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**Africa**

Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Cote d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe

**America**

Antigua and Barbuda, Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela

**Asia**

Afghanistan, Armenia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Cambodia, China, Georgia, India, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kyrgyzstan, Lao People's Dem. Rep., Lebanon, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Oman, Pakistan, Palestinian Authority or West bank and Gaza Strip, Philippines, Saudi Arabia, Sri Lanka, Syria, Tajikistan, Thailand, Timor-Leste, Turkmenistan, Uzbekistan, Viet Nam, Yemen

**Europe**

Albania, Belarus, Bosnia and Herzegovina, Moldova, Montenegro, North Macedonia, Serbia and Kosovo, Turkey, Ukraine

**Pacific**

Fiji, Nauru, Palau, Papua New Guinea, Solomon Islands, Tonga, Vanuatu

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*Note.* Kosovo and Serbia are considered as one entity by the UNHCR, and therefore also here.

### 3.2. Dependent Variable: Asylum Applications

Table 4 summarises the variables used in the econometric study. The dependent variable are annual bilateral asylum applications in 28 EU countries from 139 countries of origin over a period of 23 years. The data is derived from the UNHCR's (2024) Refugee Population Statistics Database. Asylum applications are bilateral and vary over time, i.e. asylum applications vary for each country pair over the 23 years under investigation. As there are 28 destination and 139 origin countries, there are 3,892 unique country pairs (for example Germany-Algeria; Germany-Angola, Germany-Benin...; France-Algeria, France-Angola, France-Benin...). Therefore, for each destination country in each year, there are 139 data entries on asylum applications from the 139 countries of origin. Given the panel data structure of the dataset variation in asylum applications between country pairs and over time is captured.

An advantage of using asylum applications rather than differences in refugee stocks as a dependent variable lies in the nature of the data, and what it is able to explain. Beine et al. (2016, p. 501-2) outline that “variations in stocks differ from gross flows as they are also influenced by return migration, migration to third countries, deaths and naturalisations (...) and births”, which is a considerable limitation in a quantitative study. Given the research interest of this dissertation, such changes in refugee / asylum seeker stocks would bias the results, as the stocks would vary due to factors other than new arrivals of asylum seekers. Previous studies, like Dreher et al. (2019, p. 132) calculate “net refugee flows by taking the first difference in refugee stock values from period  $t$  to period  $t-1$ ”, which means that values could also be negative, which would represent a scenario that is not possible in the real world. Besides this, “the major disadvantage of using stocks” according to Lanati and Thiele (2024, p. 933), is that “it includes people who left their home countries long ago, a decision that is unlikely to be related to current drivers of refugee migration”. Therefore, asylum applications, which are gross flows, and do not suffer from the limitations of variations in refugee stock data, are used in this dissertation. But what do the numbers of asylum applications actually represent?

In a quantitative study, asylum applications – as well as ODA and the other control variables – are numbers in a data sheet. In the simplest sense, a number represents the size of a certain variable, and the effect captured by a regression analysis is the change in one number due to the change in another number, holding a lot of other numbers constant. As Porter (1994, p. 396)

notes, “to quantify was necessarily to ignore a rich array of meanings and connotations”. Hence, by quantifying asylum seekers, and representing them by a number, only five components of their ‘identity’ are captured: 1) that they applied for asylum, 2) where they applied, 3) what their country of origin is, 4) when they applied and 5) how many they are. The first component, that they applied for asylum, relates to their (future) legal status. Categorisations based on “the legal categories under which people were admitted” are inevitably “crude, ‘flattening’ the complex motivations that actually shape migration decisions into a single ‘main reason’ or visa category”, but might still be better than pooling all migrants into one category (Allen et al., 2018, 225-226). When politicians declare that “we need to join forces to stop the irregular flow of migrants (...) by increasing our assistance to countries of origin” (Federal Ministry of the Republic of Austria: European and International Affairs, 2016), they refer to the fifth component: how many they are. Such statements quantify irregular migrants or asylum seekers and follow an econometric and causal language: increase B to decrease A. Both aid and asylum seekers are numbers in such a discourse. Still, relying on the number of asylum seekers in a quantitative academic study allows for a general insight into the overall effect of aid on forced migration to the EU.

Data on asylum applications provides an insight into the dynamics of forced migration in that it includes all persons who emigrated with the intention of applying for asylum or decided during the journey or upon arrival to apply. However, as the UNHCR (n.d., para. 3) states, “not all asylum-seekers will be found to be refugees, but all refugees were once asylum-seekers”. Thus, asylum applications represent 1) all future refugees and 2) people who emigrated for other reasons, but also applied for asylum. Furthermore, as Zetter (2007, p. 189) notes, “the label ‘refugee’ is now preceded by new labels in the processing chain such as ‘asylum seeker’” which “act as reservoirs to contain entry and intercept access to the most prized claim”. Thus, results based on data for asylum seeker movements might differ to those using refugee flows, as the former are in the “reservoirs to contain entry” while the latter have gained “access to the most prized claim” of refugee status, to follow Zetter's (2007, p. 189) language.

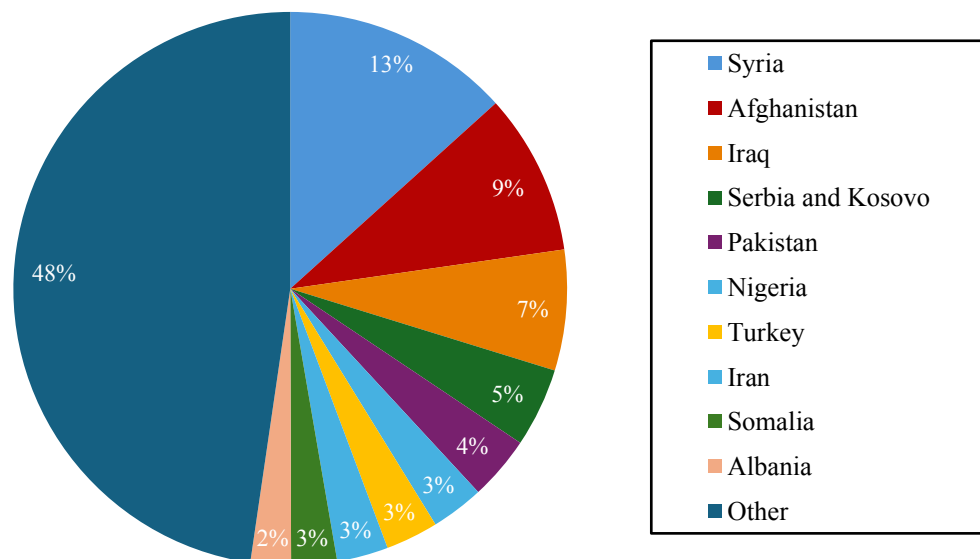
Furthermore, it is important to reiterate that this dissertation deals with asylum applications in the EU and thus cannot determine whether aid actually contributes to less displacement worldwide. “If governments follow egoistic national interests, donors’ ultimate goal is to

discourage refugees from moving to their country rather than reducing refugee flows at large”, according to Dreher et al. (2019, p. 131). Therefore, asylum applications in the EU show if donors’ goals to reduce movements towards the EU through aid payments are successful. They give insight into South-North movements of asylum seekers, which, as Figure 1 showed, is only one part of the worldwide picture.

But where are asylum applicants in the EU from? Figure 3 shows the share of the ten most important countries of origin in total asylum applications in the EU. The pie chart covers the entire period from 2000 to 2022, and thus provides an overview rather than changes in asylum applications. 13 percent of the people who applied for asylum in the EU were from Syria, 9 percent from Afghanistan and 7 percent from Iraq. If aid is set out to address the root causes of displacement, the top countries of origin should also be among the top recipients of ODA. A comparison with Figure 5 and 6 provides descriptive evidence of the extent this hold true.

**Figure 3**

*Share of total Asylum Applications in the EU by Country of Origin, 2000-2022*



*Note.* This Figure is the authors own creation based on data from the UNHCR (2024). Russia was the country from where the overall 7th highest number of asylum applications came (409343) in the 23 years. As Russia is not a recipient of ODA, it could have not been included into this study. Hence, it was also excluded from this figure. Serbia and Kosovo refers to Serbia and Kosovo: S/RES/1244 (1999), which is the entity that the UNHCR uses.

**Table 4***Overview of the data used for the PPML-IV*

<b>Variable</b>	<b>Definition</b>	<b>Source</b>
<b>Asylum Applications</b> (od,t)	Annual dyadic number of asylum applications from the country of origin to the country of asylum	UNHCR
<b>Bilateral ODA</b> (do,t)	Dyadic ODA gross disbursement from destination country to origin country in constant USD	OECD
<b>EU ODA</b> (o,t)	ODA gross disbursement received by origin country from the EU Institutions in constant USD	OECD
<b>Other ODA</b> (o,t)	Total gross ODA from all donors besides the EU institutions & Member States in constant USD	OECD
<b>Migrant stock</b> (od,t)	Migrant stock of origin country in recipient country. Data from 1990, 1995, 2000, 2005, 2010, 2015, 2020. For values between data observations, previous observations were duplicated, i.e. value from 2000 was used for 2000, 2001, 2002, 2003, 2004.	UN DESA
<b>Population</b> (o,t)	Total population in the origin country	World Bank
<b>Unemployment</b> (o,t)	Unemployment rate in origin country, ILO modelled	World Bank
<b>GDP per capita</b> (o,t)	Per capita GDP in the country of origin at 2015 constant USD	World Bank
<b>Political Freedom</b> (o,t)	Combined index of Political Rights and Civil Liberties. Calculated by adding the one to seven scales of each individual measure. 14 indicates the lowest degree of freedom & 2 the highest.	Freedom House
<b>Conflict</b> (o,t)	Dummy variable which is 1 if there was a violent conflict in the country of origin (0 = no conflict)	UCDP-PRIO
<b>Natural Disaster</b> (o,t)	Number of natural disasters with at least 100 people affected or over five deaths in the country of origin	EM-DAT
<b>Distance Cap.</b> (od)	Distance between the capital cities of the destination and origin country	CEPII
<b>Com. Language</b> (od)	Dummy variable which equals 1 if more than 9 percent of both countries' populations speak the same language	CEPII
<b>Colony</b> (od)	Dummy variable, which is 1 if there was colonial link (0 = No)	CEPII

*Note.* Abbreviations in the brackets explain the nature of the data. 'o' refers to origin, 'd' to destination & 't' time. If the bracket is 'od', the variable is specific to one destination and one origin country but does not vary over time. If it is 'o,t' this means that the variable can change at origin each year. 'od,t' and 'do,t' refer to dyadic data, from origin to destination and vice-versa, that changes over time.

### 3.3. Independent Variables: ODA from EU countries, the EU & other donors

The two main independent variables in the PPML-IV are bilateral gross ODA disbursements by the 28 EU Member States, and gross ODA disbursements from the EU Institutions to 139 countries from 2000 until 2022. The countries that receive ODA, are also the countries of origin of asylum applicants in the EU, as listed in Table 3. The data on ODA comes from the OECD's (n.d.) Creditor Reporting System database. ODA is defined as “government aid that promotes and specifically targets the economic development and welfare of developing countries” (OECD, n.d., para 1). For more than half a decade, ODA has been the most important source of development assistance (OECD, n.d.). Like asylum applications, bilateral ODA from the EU Member States is specific to each of the 3,892 country pairs. In the panel dataset that I constructed for this dissertation, the aid flows from each of the 28 donors to each of the 139 recipient countries are reported for each year of the 2000-2022 period.

This dissertation uses ODA disbursements rather than commitments, as it reflects the aid that actually reaches a country and could therefore have an impact in a displacement crisis. “*Commitments* measure donors’ intentions” whereas “*disbursements* show actual payments made each year” (OECD, 2024, para. 13). If aid would influence forced migration by reducing conflicts and persecution, or by increasing incomes and employment levels, this would only be possible through actual payments. If there is an announcement effect (see Fuchs et al. 2023) or aid works through an information channel (e.g. Berthélemy et al., 2009), this would be related to the actual announcement or implementation of a new project, rather than information about the intentions of donors to provide aid. ODA disbursements “show the realisation of donors’ intentions and the implementation of their policies” (OECD, 2024, para. 13). Thus, aid disbursements are better suited to assess the impact on forced migration than commitments.

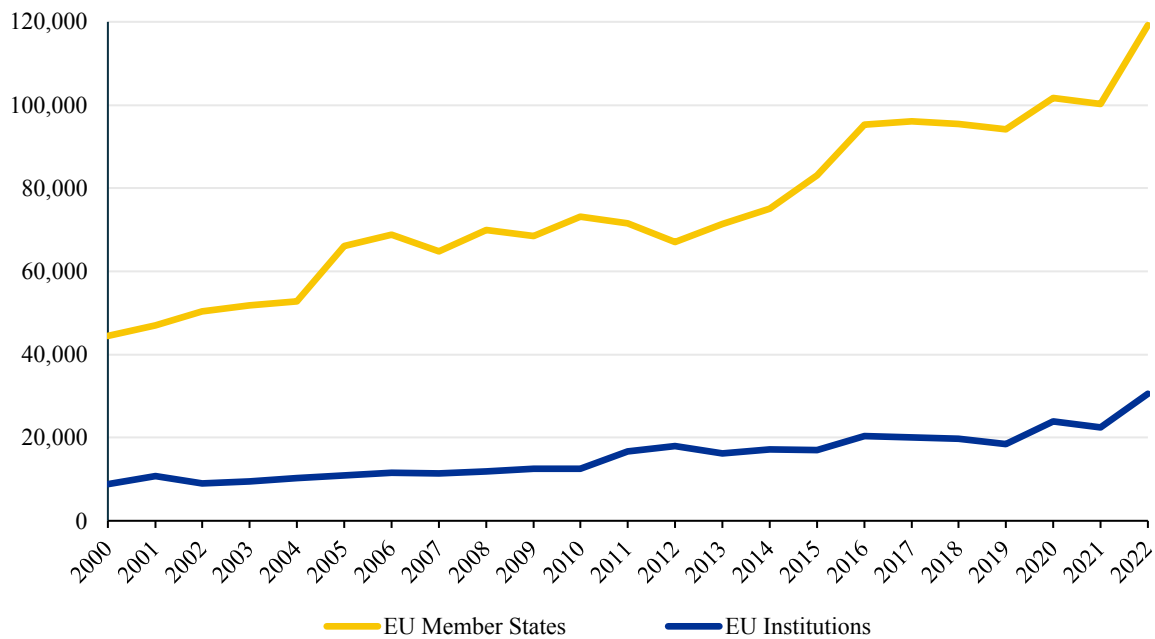
The inclusion of ODA from the EU institutions as an independent variable in research on the movements of asylum seekers is one of the main innovations in this thesis. Figure 4 shows that while the ODA disbursements from all EU Member States jointly are close to US\$ 120,000 million in 2022, ODA by the EU Institutions alone is more than US\$ 30,000 million. After Germany and the United States, the EU Institutions provided the third most ODA in 2022 worldwide (OECD, n.d.). In addition, the EU is the world’s largest source of aid for displacement crises (European Commission, n.d.-a). Therefore, specifically analysing the influence of the

EU's is very relevant. As can be seen in Figure 4, ODA from both the EU and the Member States has increased from 2000 until 2022. Interestingly, both ODA disbursements plateau and even slightly decrease after an initial increase from 2015 to 2016. From 2021 to 2022 both EU and bilateral ODA increase significantly again.

The third independent variable in this study are total gross ODA disbursements by all other donors besides the EU28 and the EU institutions. Thus, this variable includes aggregated ODA disbursements from the DAC countries Australia, New Zealand, Japan, Korea, Iceland, Norway, Switzerland, Canada, and the United States.

**Figure 4**

*Total gross ODA disbursements in Million US\$, 2000-2022*



Note. This graph is the authors own creation, based on data from the OECD (n.d.). ODA from all current EU27 and the UK are included in this graph, even if they weren't EU Member States yet. ODA is in constant 2022 USD.

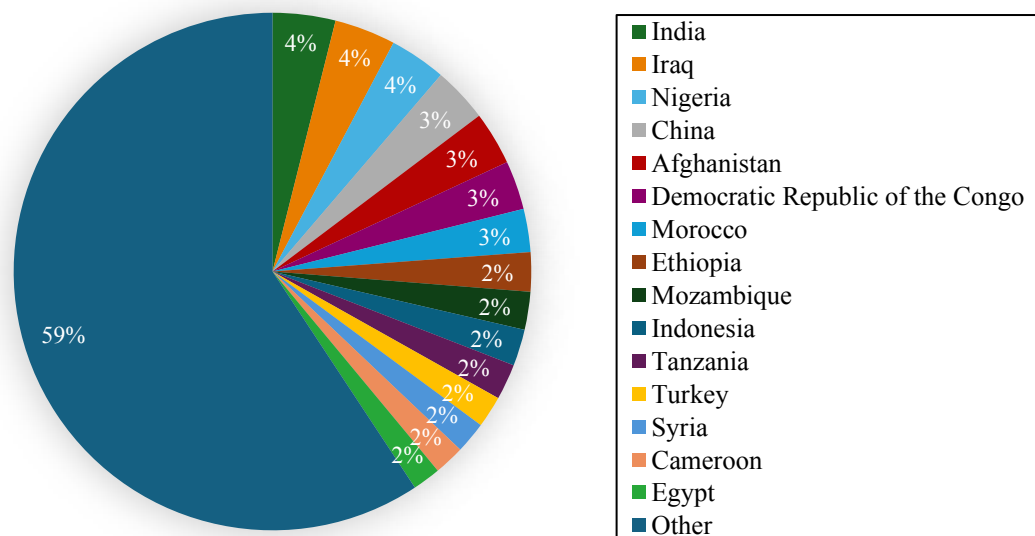
A comparison of the descriptive statistics on the relative amount of aid received by a country and the share of asylum applications from that country provides a first insight into the relationship between these two factors. If aid is provided to fight the root causes of



displacement, more aid would be provided to the main countries of origin of asylum seekers. Figures 5 and 6 show to which countries the EU Member States and the EU institutions are providing their ODA. Over the period from 2000 to 2022, India was the country that received most aid from the EU Member States, followed by Iraq and Nigeria. Comparing Figure 5 to Figure 3 indicates if the home countries of the main asylum seeker groups received more aid from the EU Member States. Syria, Afghanistan and Iraq, the three countries from where most asylum seekers emigrated to the EU, are also among the top 15 recipients of bilateral aid. Nigeria and Turkey, both among the main countries of origin also receive a significant share of bilateral ODA. However, other origin countries like Pakistan, Iran and Somalia are not among the main aid beneficiaries. Besides, India, China and Indonesia, who are among the main aid recipients are not among the top countries of origins of asylum seekers. Overall, many of the main countries of origin also feature among the main aid recipients.

**Figure 5**

*Top 15 Recipients of ODA Disbursements from EU countries in Million US\$, 2000-2022*



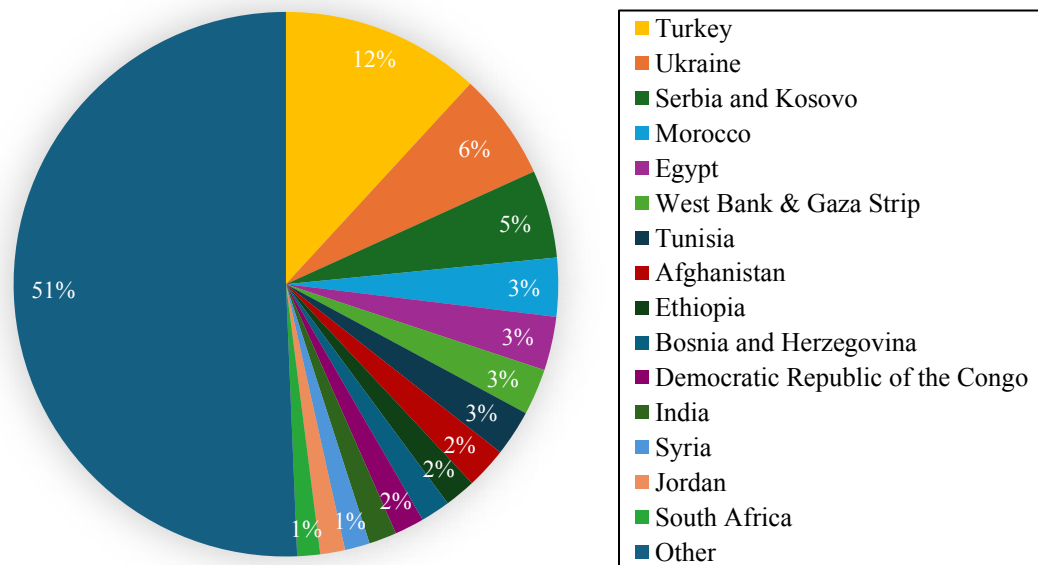
*Note.* This pie chart is the authors own creation based on data from the OECD (n.d.). It shows the share a country received of all the ODA by the 28 EU states disbursed from 2000-2022.

The EU Institutions also appear to provide a considerable share of their development aid to some of the main countries of origin. As Figure 6 shows, Turkey has received 12 percent of the total ODA the EU disbursed from 2000 to 2022 and is therefore its main recipient. Turkey is

not only the 7<sup>th</sup> biggest country of origin for asylum seekers from the EU (see Figure 3), but also an important transit country (Reitano & Tinti, 2015). Many other transit countries, like Egypt, Tunisia or Jordan are also among the main recipients of the EU’s ODA (Reitano & Tinti, 2015). Besides, important origin countries of asylum seekers like Syria, Afghanistan and Serbia and Kosovo received significant shares of aid from the EU Institutions. However, some of the main countries of origin, like Iran, Somalia and Albania don’t rank among the top 15 recipients of the EU’s ODA. While these observations do not provide causal evidence, they show a strong overlap between the countries of origins and the main recipients of ODA.

**Figure 6**

*Top 15 Recipient Countries of EU ODA Disbursements in Million US\$, 2000-2022*



*Note.* This pie chart is the authors own creation based on data from the OECD (n.d.). It shows the share a country received of all the ODA the EU institutions disbursed from 2000-2022.

### 3.4. Control Variables

In addition, ten control variables are included that are in line with the state of the art in quantitative migration research. An overview is provided in Table 4. The control variables are either of dyadic nature or specific to each country of origin as well as time-variant or time-invariant. Factors at the destination country that might influence migration decisions are captured by destination-year fixed effects.

As reported in Table 4, four dyadic control variables are included in the PPML-IV. The dyadic variables have ‘od’ in brackets next to the variable name, as they are specific to each each country of origin ‘o’ and country of destination ‘d’. Dyadic variables that impact migration may be either time-invariant or time-varying (Beine et al., 2016). The first variable *Migrant stock* is dyadic and time-varying, as it describes the migrant stock of an origin country ‘o’ in a destination country ‘d’ in different years ‘t’. Data on migrant populations is used to control for the influence of migrant networks in shaping migratory decisions, and “failure to account for networks can lead to an omitted variable bias” (Beine et al., 2016, p. 508). Besides, as migrant stocks can also influence bilateral aid allocation (Bermeo & Leblang, 2015), the absence of a control variable for the migrant stock will affect the reliability of the results. Therefore, I control for migrant networks by using data on migrant stocks from each of the 139 countries of origin in each EU Member State, which is provided by the United Nations Department of Economic and Social Affairs, Population Division (2020).

Besides, I include three dyadic control variables that are time-invariant and could influence ‘voluntary’ as well as forced migration movements. As outlined by Beine et al. (2016, p. 509), “the most important time-invariant dyadic components of bilateral migration costs (...) are bilateral distance, colonial links, linguistic and cultural proximity”. I rely on the commonly used GeoDist datasets provided by CEPIL (Mayer & Zignago, 2011) for the construction of these control variables. *Colony* is a dummy variable, that equals 1, if one of the country pairs has ever had a colonial link.” *Com. Language* is also a dummy variable, which is 1 if more than 9 percent of both countries’ populations speak the same language. *Distance Cap.* captures the distance between the capitals of the origin country ‘o’ and the destination country ‘d’ in each country pair. These variables do not change over time, but specifically describe the relationships between two countries that could affect migratory movements.

Moreover, six factors that describe the conditions in the country of origin of asylum seekers – commonly referred to as push factors – are controlled for. They are labelled with an ‘o,t’ in brackets next to their name, as they are time-variant and origin-specific. All factors that are specific to the country of origin and do not change over time are captured by the origin fixed

effects, as explained in the next section. As conditions in the origin country, such as violent conflicts, poverty or natural disasters, can increase both forced migration as well as aid flows, they are a likely cause of endogeneity and need to be controlled for (Clist & Restelli, 2021). Besides, “if the dependency of bilateral migration costs on economic conditions at origin is not properly controlled for, then an increase in incomes at origin would reduce the bilateral migration rate less than an identical decrease at destination” (Beine et al., 2016, p. 506). Therefore, I include a control variable for the GDP per capita of the 139 origin countries. Data for this control variable and for the variables *Population* and *Unemployment*, which account for the total population and the unemployment rate at origin each year, are derived from the The World Bank Group’s (2024) World Development Indicators database.

Furthermore, the control variable *Conflict*, which is a dummy variable that equals 1 if there is a violent conflict in the country of origin in that year, is included. The data used for the construction of the dummy variable comes from the UCDP/PRIO Armed Conflict Dataset version 24.1 (Gleditsch et al., 2002, Shawn et al., 2024). Violent conflicts, political oppression and persecution are widely recognised drivers of forced migration (see e.g. Davenport et al. (2003); Hatton and Moloney (2017)) and should therefore be controlled for. In order to capture the origin country’s political environment, I created the index *Political Freedom*. This index is based on the Freedom in the World dataset by Freedom House (2024). I follow Restelli (2021) in combining the two indices that score civil liberties and political rights respectively on a scale of one to seven in the Freedom in the World dataset into a new index where two indicates the highest and fourteen the lowest level of freedom. In addition, the variable *Natural Disaster* accounts for the impact of natural disasters in the origin country. Numerous publications have emphasised the influence of environmental factors on international migration (Beine et al., 2016). Beine and Parsons (2015, p. 723) “find evidence of indirect effects of environmental factors operating through wages”. Following Clist and Restelli (2021), *Natural Disaster* counts the amount of natural disasters that occurred in the country of origin in a given year that resulted in more than five fatalities or affected at least 100 people. This variable is created with data from the Emergency Events Database (EM-DAT) provided by the Centre for Research on the Epidemiology of Disasters (Delforge et al., 2023).

#### 4. Empirical Strategy I: PPML-IV

This section outlines the econometric approach used to analyse the effect of ODA from the EU Institutions and bilateral ODA from the EU Member States on asylum applications in the period from 2000 to 2022. The first sub-section discusses the econometric model and the estimation strategy. The second sub-section outlines the Instrumental Variable (IV) approach used to address the reverse causality between aid and asylum seeker movements.

##### 4.1. Model and Estimation Strategy: Gravity Model and PPML

The econometric specification is derived from a structural gravity model, which is now standard in the analysis of international migration flows (e.g. Lanati et al., 2023; Beine et al., 2016; Ortega & Peri, 2013). The gravity model was originally developed for the study of trade flows and has recently been applied in studies that focus on determinants of refugee and asylum seeker movements (e.g. Lanati & Thiele, 2024; Ripollés & Martínez-Zarzoso, 2021; Kang, 2021). As noted by Ripollés and Martínez-Zarzoso (2021, p. 835) the gravity model allows the user to benefit from the “advances made in the trade and migration literature concerning the econometric estimation and isolation of the causal effect of specific economic and political factors”. In the baseline specification asylum applications from an origin country  $o$  to a destination country  $d$  in a year  $t$  ( $A_{odt}$ ) are a function of origin-specific factors ( $O_{ot-1}$ ) and dyadic factors ( $OD_{od/do}$ ):

$$\begin{aligned} A_{odt} = \exp[ & y_0 + y_1 \ln(\text{BilODA}_{dot-1}) + y_2 \ln(\text{EUODA}_{ot-1}) + y_3 \ln(\text{OtherODA}_{ot-1}) \\ & + y_4 \ln(\text{MigrStock}_{odt-1}) + y_5 \ln(\text{Pop}_{ot-1}) + y_6 \ln(\text{Unemp}_{ot-1}) + y_7 \ln(\text{GDPpc}_{ot-1}) \quad (1) \\ & + y_8 \ln(\text{PolFreedom}_{ot-1}) + y_9 \text{Conflict}_{ot-1} + y_{10} \ln(\text{NaturalDis}_{ot-1}) \\ & + y_{11} \ln(\text{DistCap}_{od}) + y_{12} \text{Colony}_{od} + y_{13} \text{ComLang}_{od} + \eta_o + \lambda_{dt}] + \varepsilon_{odt} \end{aligned}$$

All independent variables in the main model specification are lagged by one year to reduce potential bias due to reverse causality (Lanati & Thiele, 2024). Following previous publications (Chen, 2004; Dreher et al., 2019; Ripollés and Martínez-Zarzoso, 2021) the estimation of equation (1) uses the natural logarithm plus one of all continuous independent variables. The three independent variables of interest are  $\text{BilODA}_{dot-1}$ ,  $\text{EUODA}_{ot-1}$  and  $\text{OtherODA}_{ot-1}$ .  $\text{BilODA}_{dot-1}$  refers to bilateral ODA disbursements from donor/destination country  $d$  to

recipient/origin country  $o$  in year  $t-1$ .  $EUODA_{ot-1}$  represents the ODA disbursements by the EU Intuitions to an origin country  $o$  in year  $t-1$  and  $OtherODA_{ot-1}$ , denotes the total ODA disbursements by all other donors than the EU and its Member States to an origin country  $o$  in year  $t-1$ .  $MigrStock_{od,t-1}$  is a dyadic time-varying control variable, which represents the migrant networks between origin  $o$  and destination  $d$  at year  $t-1$ . The time-varying control variables that capture the potential drivers of forced migration in the origin country  $o$  in year  $t-1$  are  $Pop_{ot-1}$ , referring to the population,  $Unemp_{ot-1}$ , which represents the unemployment rate,  $GDPpc_{ot-1}$ , which denotes the GDP per capita,  $PolFreedom_{ot-1}$ , which is an index of the political freedom and civil liberties,  $Conflict_{ot-1}$ , which is a dummy variable capturing if there is a violent conflict and  $NaturalDis_{ot-1}$ , which counts the occurrences of natural disasters. Furthermore, the dyadic time-invariant control variables  $DistCap_{od}$ , which is the distance between the capitals in origin  $o$  and destination  $d$  as well as  $Colony_{od}$  and  $ComLang_{od}$ , which are dummy variables indicating former colonial links and whether a common language is spoken in both countries  $o$  and  $d$  are included.  $\varepsilon_{odt}$  is the error term. I cluster the robust standard errors at the country-pair level.

In addition, two fixed effects account for time-varying conditions in the destination countries, and time-invariant factors in the origin countries that could influence migration movements. The panel dimension of my dataset allows for the inclusion of destination-year fixed effects, which “control for the influence of general immigration policies” (Beine et al., 2016, p. 507).  $\lambda_{dt}$  denotes the destination-year fixed effects which “absorb potentially confounding changes at the level of the destination country, such as changes in immigration policies [and] time-varying destination-specific shocks” (Fuchs et al., 2023, p. 34). Therefore, variables describing the conditions in the destination country do not need to be included in the model, as they are automatically captured by the destination-year fixed effects. This is well established in the quantitative migration literature (e.g. Lanati & Thiele, 2018; Ripollés & Martínez-Zarzoso, 2021; Fuchs et al., 2023). Furthermore, origin fixed effects capture “time-invariant origin-specific push factors (...) as well as time-invariant origin-related cost variables” (Beine and Parsons, 2015, p. 734). The origin-country fixed effects are denoted as  $\eta_o$ .

Furthermore, the destination-year fixed effects and origin fixed effects control for multilateral resistance to migration. Migration “between two countries does not depend solely on their relative attractiveness, but also on the one of alternative destinations”, according to Bertoli and

Fernández-Huertas Moraga (2013, p. 79), who “term the influence exerted by other destinations on bilateral flows as Multilateral Resistance to Migration”. Failing to account for multilateral resistance to migration will lead to biased estimation results (Bertoli and Fernández-Huertas Moraga, 2013; Beine et al., 2016). Previous econometric studies have found different solutions to account for multilateral resistance to migration. I follow Lanati and Thiele (2018) in my specification of fixed-effects, as their approach sets out to analyse total aid, which varies over time at origin, as does EU ODA in my study. Introducing both destination-year and origin-year fixed effects would control for total aid and EU aid at origin, and is therefore not feasible (Lanati and Thiele, 2018, 2021). However, Lanati and Thiele (2018, p. 62) state that the “inclusion of destination time-varying fixed effects will completely account for any multilateral resistance in receiving countries”. Which, according to Beine and Parsons (2015, p. 732-33) is “the most important aspect in the context of international migration given the migration policies of the destination country”. Ripollés and Martínez-Zarzoso (2021) and Marchal et al. (2022) also rely on destination-year and origin fixed effects to account for multilateral resistance to migration, which makes me confident that my model is specified correct.

Equation (1) is estimated with the Poisson Pseudo-Maximum Likelihood (PPML) estimator, which has considerable benefits over other estimation techniques. While the estimation could be done by ordinary least-squares (OLS) regressions, the results would likely be inconsistent (Beine & Parsons, 2015). With OLS, many observations would be removed due to the occurrence of zeros, whereas the PPML estimator permits the inclusion of values of zero and therefore eliminates the otherwise associated selection bias (Beine & Parsons, 2015). As shown by Santos Silva and Tenreyro (2011), PPML provides reliable estimates even if a large proportion of the data are zeros. Besides providing “a natural way to deal with zero values of the dependent variable”, Santos Silva and Tenreyro (2006, p. 641) demonstrate that the estimates of a PPML are also “consistent in the presence of heteroskedasticity”. When relying on OLS, “in the presence of heteroskedasticity, estimates obtained using log-linearized models are severely biased, distorting the interpretation of the model” (Santos Silva & Tenreyro, 2006, p. 641). Therefore, PPML is the estimation technique that provides the most reliable results when estimating a gravity model on the effect of ODA on asylum applications. The estimation is carried out in stata using the command *ppmlhdfe* (Correia et al., 2020).

## 4.2. Instrumental Variable Approach

Importantly, if the endogeneity between foreign aid flows and asylum seeker movements is not addressed, the estimation will produce biased findings. This dissertation is interested in how foreign aid influences asylum seeker movements. However, as discussed in Section 2.1., asylum seeker movements could also influence the allocation of foreign aid. There could be reverse causality between the two – aid might influence asylum seeker movements and asylum seeker movements might also influence aid allocation. According to Clist and Restelli (2021, p. 1285) “reverse causality refers to the fact that a donor may disburse more aid to countries that send more migrants, or it might reduce assistance to the same countries punishing the lack of cooperation at stemming outflows”, which would bias the results. Further endogeneity concerns are related to the simultaneity between the dependent and independent variables or because of omitted variables that have an influence on both (Marchal et al., 2022). Simultaneity “arises when one or more of the explanatory variables is jointly determined with the dependent variable” (Wooldridge, 2020, p. 534). How can it then be ensured that the results are reliable?

Previous studies on aid’s effect on migration have relied on three-stage least squares approaches to address endogeneity (e.g. Berthélemy et al., 2009; Lanati & Thiele, 2018; Restelli, 2021). However, given the larger share of zero values in the foreign aid and asylum applications variables (meaning no flows between two countries in a given year) of my dataset, PPML is the preferred estimator (Santos Silva & Tenreyro, 2006, 2011). Therefore, in order to obtain results that could identify a causal relationship between ODA and asylum seeker movements, I use the PPML estimator with an IV strategy (PPML-IV). However, identifying a valid instrumental variable is not simple (Beine et al., 2016). The IV used in this dissertation has been initially proposed by Temple & Van de Sijpe (2017) and introduced to the study of the relationship between aid and voluntary migration by Marchal et al. (2022). Marchal et al. (2022, p. 9) propose “the initial share of aid sent to country  $o$  by a donor country multiplied by the donor country’s actual total bilateral aid” as a reliable instrument for foreign aid. Equation (2) provides the notation for the instrument:

$$IV - BilODA_{do,t} = \frac{BilODA_{do,t_0}}{BilODA_{d,t_0}} BilODA_{d,t} \quad \forall t > t_0 \quad (2)$$



Where  $IV-BilODA_{do,t}$  is the instrumental variable, which is calculated by dividing the amount of bilateral aid from each EU Member State  $d$  to each of the 139 countries of origin  $o$  ( $BilODA_{do,t0}$ ) in the first year that aid has a positive value in the period of analysis  $t0$  by the total amount of bilateral aid the donor  $d$  has provided in that year  $t0$  ( $BilODA_{d,t0}$ ); this is then multiplied by the total amount of aid a donor  $d$  disburses in a subsequent year  $t$  ( $BilODA_{d,t}$ ). “This instrument exploits changes in total donor budgets, weighted by the initial shares of recipients in those budgets”, which, according to Marchal et al. (2022, p. 9), “should isolate changes in aid receipts that are not driven by the conditions of individual aid recipients”. The exogeneity of the instrument stems from the fact that the “initial share of aid allocated to a recipient country should not be correlated with the actual recipient countries’ emigration rates to the donor country” (Marchal et al., 2022, p. 9). While the overall amount of aid a donor  $d$  disburses may change over time, its division among the different recipients remains unchanged (Marchal et al., 2022). The IV therefore controls “for changes in the demand for aid as well as in the supply of aid that could be caused by migrants” (Marchal et al., 2022, p. 9).

Following the same approach, I created a second IV for aid from the EU Institutions. Other than bilateral ODA, ODA from the EU institutions is not dyadic, but origin specific. The equation therefore changes slightly:

$$IV - EUODA_{o,t} = \frac{EUODA_{o,t0}}{EUODA_{t0}} EUODA_t \quad \forall t > t_0 \quad (3)$$

However, the creation of the IV remains the same, as the initial share a country  $o$  receives from the EU Institutions at  $t0$  ( $EUODA_{o,t0}$ ) is divided by the total aid disbursements from the EU in the same year  $t0$  ( $EUODA_{t0}$ ) and multiplied by the total ODA from the EU in a later year  $t$  ( $EUODA_t$ ). The justification for its exogeneity remains the same. Marchal et al. (2022) only use the instrument for bilateral aid and not for aid by other donors or from multilateral institutions, as they assume there would be no endogeneity. While bilateral ODA is commonly considered endogenous in the literature, this is rather rare for other forms of ODA (Clist & Restelli, 2021). However, the previously outlined ambitions of the EU to tackle the root causes of displacement cast serious doubt as to whether EU ODA actually is exogenous (e.g. Agreement establishing the EUTF for Africa, 2015, p. 8). Thus, it is important to also include

an IV for EU ODA. Dreher et al. (2019) even exclude multilateral aid in their study as they do not have an adequate instrumental variable. Alongside Fuchs et al. (2023), this dissertation therefore provides the only assessment of the effect of a specific form of multilateral aid – and to the best of my knowledge the only one of EU aid – on forced migration movements.

In order to incorporate the IV into the PPML estimation, I rely on the control-function approach developed by Wooldridge (2015). According to Wooldridge (2015, p. 443) “control function methods are (...) very useful in panel data applications where one must account for unobserved heterogeneity as well as endogeneity”. Following Wooldridge (2015), I first regress my endogenous variables (bilateral ODA and the EU’s ODA) on the exogenous independent variables and the respective IV’s to obtain the residuals. These residuals are then included into Equation (1) and calculated with the PPML estimator to obtain unbiased and reliable results. With the control function approach it is possible to “control for the endogeneity of aid by including the predicted error from the first-stage regression” in the second-stage regression (Dreher et al., 2019, p. 138). The first-stage regressions consistently report high F-Statistics and find that the IV-BilODA has a positive and statistically significant effect on bilateral ODA and the IV-EUODA has a positive and statistically significant effect on ODA from the EU Institutions, confirming the strength and validity of the instrument.

## 5. Results

This section presents the results of the PPML-IV in four different sets of regressions. First, the results for the main specification with the IV strategy are presented, showing the influence of bilateral and EU ODA over time. Second, the panel is split into countries of origin with a GDP per capita above and below the median, in order to explore the differences in the effect of aid depending on economic factors at origin. Third, the PPML-IV results for different regions of the world are presented to take account of the specific dynamics in each region. Fourth, the short and medium-term effects of ODA on asylum applications from African countries are presented. Thereafter, robustness tests are provided to test the reliability of the findings.

### 5.1.1 The effect of ODA on asylum applications over time

Table 5 reports the different estimates depending on the yearly lags of Bilateral ODA, EU ODA and Other ODA. All time-variant control variables are lagged by one year in all estimations. The regression includes all 139 countries of origin, however, some of them are dropped in the estimation process. The actual number of origin and destination countries is reported in this as well as all subsequent tables. Besides, the number of observations are shown at the bottom of the regression table. The robust standard errors are reported in parenthesis below the coefficients. The statistical significance of the coefficients is denoted as follows: \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . If there is no ‘\*’ the variable does not have a statistically significant effect on the dependent variable. A minus in front of the coefficient indicates that the variable has a negative effect on asylum applications, and no minus that is has a positive effect. This dissertation addresses the question whether ODA has an a) positive, b) negative or c) no statistically significant effect on asylum applications in the EU. In this context, a positive effect means that an increase in ODA is associated with an increase in asylum applications and a negative effect means that it is associated with a decrease.

The first column of Table 5 reports the baseline estimates with the PPML-IV approach. In this column the variables of interest as well as the time-variant control variables are lagged by one year. As can be seen in column 1, the coefficient of *Bilateral ODA* is negative and statistically significant at the 5% level. This means that a 1% increase in bilateral ODA in the previous year is associated with a decrease in asylum applications by 0.0736%. This is a small but statistically

**Table 5***The Effect of ODA on Asylum Applications over Time (2000-2022)*

	(1)	(2)	(3)	(4)	(5)
	PPML-IV	PPML-IV	PPML-IV	PPML-IV	PPML-IV
Log Bilateral ODA (do,tx)	-0.0736** (0.0362)	-0.0944** (0.0381)	-0.138*** (0.0374)	-0.167*** (0.0400)	-0.185*** (0.0417)
Log EU ODA (o,tx)	0.0147 (0.173)	0.0314 (0.162)	-0.0878 (0.128)	-0.0358 (0.119)	0.0787 (0.112)
Log Other ODA (o,tx)	-0.0356 (0.0913)	-0.0392 (0.0872)	-0.00588 (0.0764)	-0.0606 (0.0704)	-0.146** (0.0652)
Log Migrant stock (od,t-1)	0.445*** (0.0312)	0.445*** (0.0319)	0.455*** (0.0327)	0.456*** (0.0330)	0.466*** (0.0340)
Log GDP per capita (o,t-1)	-0.797*** (0.155)	-0.760*** (0.153)	-0.788*** (0.159)	-0.738*** (0.172)	-0.684*** (0.178)
Log Population (o,t-1)	-0.240 (0.362)	-0.307 (0.392)	-0.571 (0.415)	-0.567 (0.420)	-0.599 (0.411)
Log Unemployment (o,t-1)	0.304*** (0.116)	0.306** (0.123)	0.320** (0.128)	0.293** (0.134)	0.247* (0.138)
Log Political Freedom (o,t-1)	0.766*** (0.280)	0.773*** (0.288)	0.779*** (0.298)	0.816** (0.319)	0.853*** (0.321)
Log Natural Disaster (o,t-1)	-0.0190 (0.0375)	-0.0103 (0.0400)	0.0120 (0.0403)	0.0391 (0.0436)	0.00110 (0.0434)
Conflict (o,t-1)	0.243** (0.0962)	0.259*** (0.0800)	0.303*** (0.0776)	0.307*** (0.0731)	0.318*** (0.0711)
Log Distance Cap. (od)	0.495*** (0.186)	0.490*** (0.182)	0.476*** (0.182)	0.455** (0.177)	0.465*** (0.174)
Com. Language (od)	0.766*** (0.210)	0.792*** (0.213)	0.821*** (0.218)	0.838*** (0.223)	0.834*** (0.228)
Colony (od)	-0.425* (0.256)	-0.425 (0.264)	-0.384 (0.277)	-0.344 (0.284)	-0.311 (0.292)
ODA lags	1	2	3	4	5
Observations	75287	71853	68065	64742	60983
Origin countries	127	127	127	127	127
Destination countries	28	28	28	28	28

*Note.* The dependent variable is asylum applications. Robust standard errors in parentheses. All time-variant control variables are lagged by 1 year in every regression. All specifications include destination-year and origin fixed effects. Both Bilateral and EU ODA are instrumented with the previously discussed IVs.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

significant effect. This is in line with findings by Fuchs et al. (2023), but contrasts with the results of Dreher et al. (2019). However, *EU ODA* and *Other ODA* are not statically significant in the main specification. This is an insightful first result, as it indicates that when all 139 origin countries are considered, ODA allocated by different donors has different effects on the movement of asylum seekers to the EU.

Column 1 shows that, most control variables reach statistical significance with the expected signs. The positive and highly significant coefficient of the variable *Migrant stock* confirms the relevance of migrant networks in influencing migration movements and the need to control for it. The coefficient is consistent with the substantial literature on migrant networks both in terms of sign and magnitude (Beine et al., 2016). *GPD per capita* has a negative and highly statistically significant coefficient, indicating that a 1% increase in the GDP per capita of an origin country is associated with a decrease of asylum applications by 0.797%. Relatedly, a 1% higher unemployment rate is associated with an increase in asylum applications by 0.304%. The coefficient for the population size does not reach statistical significance, nor does the variable capturing the occurrence of Natural Disasters. As expected, *Political Freedom* has a strong and statistically significant coefficient. It is important to recall that a higher score in the political freedom index indicates a worse situation in terms of civil liberties and political rights in the country of origin (Freedom House, 2024). Thus, a worsening of the political situation at origin is associated with an increase in asylum applications. This finding, as well as the sign, significance and magnitude of the Conflict dummy variable are in line with the literature on the drivers of asylum seeker and refugee movements (e.g. Davenport et al. 2003; Moore & Shellman, 2007; Hatton and Moloney, 2017). If the country of origin and destination are sharing a common language, that is also strongly associated with an increase in asylum applications, as shown by the *Com. Language* variable. Colony only appears marginally statistically significant. However, this can be explained by the inclusion of the *Migrant stock* variable, as regressions that account “for the network effect (...) fail to find any remaining role for colonial links” (Beine et al., 2016, p. 508). Somewhat counterintuitively, an increase in the distance between capitals of the origin and destination by 1% is associated with an increase in asylum applications by 0.495%. This could mean that North-Western European countries are a more attractive destination for asylum seekers.

As reported in Table 5, I continue to explore the temporal effect of ODA. Previous publications have emphasised the importance of the time dimension of foreign aid's effect for various reasons. "First, it may take time for aid to affect refugee outflows depending on the respective mechanism", according to Dreher et al. (2019, p. 132) and "second, it takes time for displaced people to reach another country". The second reason is particularly relevant in the context of this study, as the destination countries are all located in Europe and are therefore geographically further away from most of the origin countries compared to their neighbours (Dreher et al., 2019). Only 14 origin countries in my sample share a direct border with one of the EU Member States, following the CEPII classifications (Mayer & Zignago, 2011). Thus, for the majority of people claiming asylum in the EU this inevitably involves crossing other countries or flying into the EU. Fuchs et al. (2023, p. 4) propose two further time dynamics, as "in the short term, the announcement of aid projects may affect individuals' aspirations" while "in the longer term, aid may change both aspirations and capabilities through changes in life satisfaction as well as welfare outcomes".

Columns two to five display the results of the PPML-IV where bilateral ODA, EU ODA and other ODA are lagged by two, three, four and five years. The effect of bilateral ODA on asylum applications is highly significant at the 1% level with three, four and five year lags. While a 1% increase in bilateral ODA is associated with a 0.0944% reduction in asylum applications after two years, after five years it is associated with a decrease by 0.185%. Thus, a 10% increase in bilateral aid provided 5 years ago would lower asylum applications by 1,85%. These findings confirm the relevance of the time dimension of aid as the impact of bilateral ODA on asylum applications in the EU increase over time. This means that the influence of aid on asylum applications is more pronounced in the medium term than in the short term.

However, the coefficient for ODA from the EU remains non-significant in all estimations. ODA provided by other donors is only significant at the 5% level after 5 years. Before that, *Other ODA* does not show a statistically significant effect. Again, this provides evidence that the time dimension of aid is important and short-term effects are not likely to be observed in a global sample. An increase in ODA provided by other bilateral donors than the EU Member States is associated with a 0.146% decrease in asylum applications in the EU after 5 years.

### 5.1.2. The effect of ODA depending on the GDP per capita of the origin country

In a second step, I separate the sample into countries of origin of asylum seekers with a GDP per capita above and below the median. The median GDP per capita in the sample of the 139 origin countries is US\$ 2980. Panel A reports the results for countries with a GDP per capita higher than US\$ 2980 and Panel B for countries with a lower GDP per capita.

**Table 6**

*Split sample in countries with GDPpc above and below the median (2000-2022)*

	(1)	(2)	(3)	(4)	(5)
	PPML-IV	PPML-IV	PPML-IV	PPML-IV	PPML-IV
<b>Panel A. Countries with GDPpc above the median</b>					
Log Bilateral ODA (do,t)	-0.0713 (0.0527)	-0.110** (0.0516)	-0.182*** (0.0482)	-0.188*** (0.0510)	-0.197*** (0.0538)
Log EU ODA (o,t)	-0.150 (0.153)	-0.271* (0.146)	-0.335*** (0.126)	-0.308*** (0.114)	-0.0915 (0.118)
Log Other ODA (o,t)	0.0473 (0.0687)	0.137** (0.0674)	0.236*** (0.0659)	0.124** (0.0624)	-0.0437 (0.0573)
Observations	34478	32629	30634	28787	26777
Origin countries	70	70	70	69	67
Destination countries	28	28	28	28	28
<b>Panel B. Countries with GDPpc below the median</b>					
Log Bilateral ODA (do,t)	0.00258 (0.0391)	-0.0172 (0.0404)	-0.0520 (0.0407)	-0.0793* (0.0438)	-0.0885* (0.0468)
Log EU ODA (o,t)	0.502*** (0.172)	0.710*** (0.151)	0.469*** (0.168)	0.317 (0.215)	0.0111 (0.259)
Log Other ODA (o,t)	-0.308*** (0.113)	-0.454*** (0.0938)	-0.412*** (0.110)	-0.350*** (0.129)	-0.145 (0.154)
Observations	38959	36749	34416	32286	30149
Origin countries	82	81	79	77	77
Destination countries	28	28	28	28	28
ODA lags	1	2	3	4	5

*Note.* The dependent variable is asylum applications. Robust standard errors in parentheses. All time-variant control variables are lagged by 1 year in every regression. All specifications include destination-year and origin fixed effects. Both Bilateral and EU ODA are instrumented with the previously discussed IVs.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

This approach is based on Lanati and Thiele (2018), who wanted to determine the role of budget constraints in voluntary migration. Recall that, according to the migration hump theory (discussed in section 2.2), individuals' budgetary constraints to migrate may be more pronounced in lower income countries, while the income channel might prevail in countries with higher incomes (Lanati & Thiele, 2018). Thus, foreign aid might loosen budgetary constraints and contribute to more emigration in countries with lower incomes, while in countries with higher incomes aid might benefit the already 'higher' incomes and reduce migration ambitions (Lanati & Thiele, 2018). Subsequent studies have adopted this approach to account "for the potential non-linear effect of aid on migration depending on the level of economic development of the country of origin" (Restelli, 2021, p. 932; see also Marchal et al., 2022).

As can be seen in Panel A of Table 6, the one-year lagged bilateral ODA of EU Member States is not significantly associated with asylum applications from countries with a GDP above the median, which is also the case for *EU ODA* and *Other ODA*. With a lag of two years Bilateral and EU ODA become significant at the 5% and 10% level and have a negative sign. This means that a 1% increase in ODA from the EU member states two years ago is associated with a 0.110% decrease in asylum applications in the EU. Furthermore, a 1% increase in the ODA disbursed two years ago by the EU Institutions is associated with a reduction in asylum applications by 0.271%. On the other hand, ODA from other donors lagged by two years has a positive and highly significant sign, indicating an increase in asylum applications.

The effect of *Bilateral ODA* increases in magnitude over time and remains significant even after 5 years. This corresponds to the findings for the full sample in Table 5, where the coefficient of *Bilateral ODA* has a negative sign throughout. *EU ODA* also shows a stronger effect after 3 and 4 years but becomes non-significant with a 5-year lag. A 1% increase in ODA, which the EU provided three years ago to countries with a GDP per capita above the median, is associated with a 0.335% decrease in asylum applications in the EU. *Other ODA* remains positive and significant, from the 2<sup>nd</sup> to the 4<sup>th</sup> lag, but loses its significance after the fifth lag, as shown in Column 5 of Panel A. This indicates that the effect of development aid is dependent both on a temporal dimension and on who provides it – it is donor specific.



A comparison to Panel B of Table 6 further confirms this heterogeneity in aid's effectiveness and shows that it also depends on who receives it – recipient specific. *Bilateral Aid* is generally not significant when disbursed to countries with a GDP per capita below the median, i.e. lower than US\$ 2980. Only after 4- and 5-year lags does it become marginally significant, but with a very small negative coefficient. However, ODA provided by the EU Institutions to countries with lower GDP per capita has a positive and highly significant effect for the first 3 years. The effect is the opposite than if it is provided to countries with higher GDP per capita. A 1% increase in EU ODA in the previous year is associated with a 0.502% increase in asylum applications in the EU.

This would support the hypothesis that in countries with lower incomes aid loosens budget constraints, but for countries with higher incomes it lowers the income differential and thus decreases emigration rates – also for asylum seekers. However, the negative and statistically significant impact of the variable *Other ODA* somewhat obscures this picture. A possible explanation could be that the provision of aid by other donors motivates asylum seekers to apply for asylum in other countries than the EU. This would relate to Murat's (2020, p. 106) finding of “negative cross-donor spillovers”, where aid provided by other donors lowers asylum seeker movements to other destination countries. However, in Panel B as well as in Panel A the coefficients of *EU ODA* and *Other ODA* have opposite signs, which would raise doubt about the generalisability of this finding.

It is further insightful to note that the conflict variable (not reported in the table to improve readability) generally loses its statistical significance for the sample with incomes above the median. However, for countries with a GDP per capita below the median it is positive and significant. For the case of ‘voluntary’ migration, Lanati and Thiele (2018, p. 66) also find that “conflict is an important driver of emigration” but that “this applies especially in poor contexts; for those countries that are located above the median the conflict dummy is no longer significant. Thus, the effect of development aid on asylum seeker movements might operate through different mechanisms in countries with higher and lower incomes.

### 5.1.3. The effect of ODA in different regions of the world

In a third set of regressions, I examine geographical differences by dividing my sample into four regional sub-samples, as specific regional dynamics might influence the impact of aid on the movements of asylum seekers. Given the explicitly political agenda of development aid (Lie, 2020), EU donors might pursue different objectives when providing aid to different regions. Besides, as aid has been predominantly provided to the origin countries of the asylum seekers that reach the donor countries (Czaika & Mayer, 2011), revisiting the descriptive statistics from Figure 3 is insightful. Figure 3 reports where most asylum seekers in the EU came from in the period 2000-2022. Among the ten most frequent origin countries, five are in Asia (Syria, Afghanistan, Iraq, Pakistan, Iran), three in Europe (Serbia and Kosovo, Turkey and Albania) and two in Africa (Nigeria, Somalia) (UNHCR, 2024). These ten countries account for 52% of the asylum applications in the EU from 2000 until 2022 (UNHCR, 2024).

Table 7 reports the results from the PPML-IV in the regional sub-samples. It can be observed that ODA from different donors has different effects in different regions. A region-specific aspect of the aid-asylum migration link is therefore evident. Column 1 in Table 7 shows that *Bilateral ODA* (in its first lag) is only significantly associated with asylum applications for countries in Africa, but not in other regions. Thus, a 1% increase in bilateral ODA to countries in Africa is associated with a decrease in asylum applications from African origin countries by 0.102% in the short term. ODA from the EU confirms the regional heterogeneity of the effect of aid. While EU ODA to African and Asian countries is associated with an increase in asylum applications in the EU, it decreases applications from European countries that are not part of the EU. For American countries of origin, the coefficient of *EU ODA* and *Bilateral ODA* is not statistically significant. Notably, no American country is among the top ten countries of origin of asylum seekers in the EU (UNHCR, 2024).

The effect of *Other ODA* is also region-specific. ODA provided by non-EU donors is associated with a reduction in asylum applications from African and American origin countries in the EU. However, an 1% increase in *Other ODA* – which is provided by donors like the United States, New Zealand or Japan – is associated with a 0.295% increase in asylum applications from European origin countries in the EU. *Other ODA* is non-significant in the sub-sample of Asian countries. Again, the coefficients of *Other ODA* and *EU ODA* consistently have opposite signs.

**Table 7***The effect of ODA on asylum applications in different regions (2000-2022)*

	(1)	(2)	(3)	(4)
	<b>Africa</b>	<b>Asia</b>	<b>Europe</b>	<b>America</b>
Log Bilateral ODA (do,t-1)	-0.102** (0.0511)	-0.0208 (0.0567)	0.00301 (0.0742)	-0.00411 (0.0591)
Log EU ODA (o,t-1)	0.752*** (0.225)	0.247** (0.113)	-0.736*** (0.187)	-0.0280 (0.0958)
Log Other ODA (o,t-1)	-0.190** (0.0848)	-0.0850 (0.106)	0.295*** (0.111)	-0.282* (0.167)
Log Migrant stock (od,t-1)	0.458*** (0.0548)	0.387*** (0.0472)	0.312*** (0.0612)	0.931*** (0.0654)
Log GDP per capita (o,t-1)	0.208 (0.265)	-0.884*** (0.179)	1.111 (1.281)	0.368 (0.925)
Log Population (o,t)-1	-4.426*** (1.277)	1.013** (0.416)	-3.725* (2.063)	-0.559 (2.308)
Log Unemployment (o,t-1)	-0.0453 (0.194)	0.476*** (0.165)	1.125** (0.441)	0.119 (0.366)
Log Political Freedom (o,t-1)	1.124*** (0.308)	2.008*** (0.381)	-0.716 (0.902)	0.412 (0.586)
Log Natural Disaster (o,t-1)	0.00724 (0.0390)	-0.184*** (0.0473)	0.0640 (0.0896)	0.492*** (0.0816)
Conflict (o,t-1)	-0.130 (0.0953)	0.214** (0.102)	1.199*** (0.341)	0.312* (0.167)
Log Distance Cap. (od)	0.706* (0.396)	0.810*** (0.261)	0.445 (0.553)	-0.567 (5.165)
Com. Language (od)	0.488*** (0.172)	0.500 (0.384)	-0.653 (0.696)	-2.972*** (0.664)
Colony (od)	-0.366* (0.204)	-0.995** (0.407)	0.766 (0.499)	2.682*** (0.455)
Observations	28545	22011	3984	10839
Origin countries	52	37	7	27
Destination countries	28	28	28	27

*Note.* The dependent variable is asylum applications. Robust standard errors in parentheses. All time-variant independent variables are lagged by 1 year. All specifications include destination-year and origin fixed effects. Both Bilateral and EU ODA are instrumented with the previously discussed IVs. Results for a regression with the countries in the region “Pacific” of the CEPII dataset are not displayed because the estimator could not find a stable solution. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

#### 5.1.4. The effect of ODA in Africa over time

Finally, I address the time dimension of aid payments to African countries and the impact on asylum applications in the EU. The *EUTF for Africa* is described as a turning point in the deployment of development aid by the EU, which is why the focus on the African continent is particularly relevant (Shenfeldt, 2018). Table 8 reports the regressions including 52 African origin countries and 28 EU destination countries, where all time-variant controls are lagged by one year, and the three ODA variables by one to five years, as indicated in the columns.

The negative and significant coefficient of *Bilateral ODA* increases in magnitude over time. Bilateral aid disbursed five years ago has a bigger negative coefficient than aid disbursed one year ago. Although the difference between the coefficients 0.102 and 0.164 does not appear big, it is more than 1.5 times the effect. However, overall, the effect is very small, as a 1% increase in bilateral ODA disbursements is associated with a 0.143% decrease in asylum applications from African countries after three years. The coefficient of *EU ODA* is bigger than that of *Bilateral ODA*. However, the coefficient is positive and significant. Thus, a 1% increase in EU ODA in the previous year is associated with an increase in asylum applications from countries in Africa by 0.752%. The magnitude of the *EU ODA* coefficient decreases over time. The short-term effect of EU aid in Africa is therefore more pronounced than the medium-term effect, as a 1% increase in EU ODA is associated with a 0.271% increase in asylum applications in the EU after four years. Other ODA is only significant at the 5% and 10% level with a negative sign for the first two yearly lags, and non-significant thereafter. This would provide support for the presence of short-term “negative cross-donor spillovers” (Murat, 2020, 106).

The difference in the sign of the coefficient between bilateral and EU ODA is a puzzling finding and contrasts with the results from the full sample in Table 5 as well as for Panel A in Table 6.<sup>1</sup> Moreover, it provides evidence that the ambition of the *EUTF for Africa*, to address “the root causes of destabilisation, forced displacement and irregular migration” does so far not appear to be successful (Agreement establishing the EUTF for Africa, 2015, p. 8). Rather, bilateral aid by member states of the EU or by other OECD donors appears to decrease asylum applications from African countries.

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<sup>1</sup> However, it is in line with the results for countries with a GDP per capita below the median (Table 6, Panel B).

**Table 8***The effect of ODA on asylum applications from Africa over time (2000-2022)*

	(1)	(2)	(3)	(4)	(5)
	PPML-IV	PPML-IV	PPML-IV	PPML-IV	PPML-IV
Log Bilateral ODA (do,tx)	-0.102** (0.0511)	-0.115** (0.0534)	-0.143*** (0.0554)	-0.152*** (0.0567)	-0.164*** (0.0572)
Log EU ODA (o,tx)	0.752*** (0.225)	0.522*** (0.169)	0.269* (0.153)	0.271** (0.114)	0.388*** (0.107)
Log Other ODA (o,tx)	-0.190** (0.0848)	-0.137* (0.0781)	-0.0508 (0.0813)	-0.00483 (0.0659)	-0.0641 (0.0631)
Log Migrant stock (od,t-1)	0.458*** (0.0548)	0.451*** (0.0553)	0.441*** (0.0555)	0.431*** (0.0558)	0.422*** (0.0561)
Log GDP per capita (o,t-1)	0.208 (0.265)	0.204 (0.269)	0.104 (0.294)	-0.0409 (0.337)	-0.0279 (0.378)
Log Population (o,t-1)	-4.426*** (1.277)	-4.517*** (1.376)	-5.027*** (1.363)	-4.867*** (1.375)	-4.775*** (1.380)
Log Unemployment (o,t-1)	-0.0453 (0.194)	-0.162 (0.195)	-0.208 (0.189)	-0.247 (0.186)	-0.297 (0.192)
Log Political Freedom (o,t-1)	1.124*** (0.308)	1.027*** (0.297)	1.068*** (0.293)	1.035*** (0.306)	1.003*** (0.324)
Log Natural Disaster (o,t-1)	0.00724 (0.0390)	0.0404 (0.0368)	0.0297 (0.0419)	0.0336 (0.0437)	0.000186 (0.0415)
Conflict (o,t-1)	-0.130 (0.0953)	0.0399 (0.0566)	0.0702 (0.0583)	0.0417 (0.0632)	0.0643 (0.0683)
Log Distance Cap. (od)	0.706* (0.396)	0.638 (0.394)	0.542 (0.394)	0.536 (0.390)	0.549 (0.387)
Com. Language (od)	0.488*** (0.172)	0.498*** (0.174)	0.522*** (0.180)	0.536*** (0.186)	0.541*** (0.192)
Colony (od)	-0.366* (0.204)	-0.333 (0.206)	-0.244 (0.208)	-0.202 (0.215)	-0.155 (0.223)
ODA lags	1	2	3	4	5
Observations	28545	27216	25867	24565	23121
Origin countries	52	52	52	52	52
Destination countries	28	28	28	28	28

*Note.* The dependent variable is asylum applications. Robust standard errors in parentheses. All time-variant control variables are lagged by 1 year in every regression. All specifications include destination-year and origin fixed effects. Both Bilateral and EU ODA are instrumented with the previously discussed IVs.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## 5.2. Robustness tests

Furthermore, to test for the validity of my findings, I carry out five robustness tests. The results are reported in Table 9. First, I test the robustness of my results with respect to the exclusion of non-DAC countries, which are not among the major ODA donors and have not been considered in the previous quantitative publications on the link between aid and (forced) migration (Column 1 of Table 9). As mentioned in Section 3.1., the EU Members states that are not members of the DAC are Croatia, Cyprus, Latvia and Malta as well as Bulgaria and Romania, who are only participants (OECD, n.d.-b). As shown in Column 1, the results remain largely unchanged to the baseline specification. All the variables keep the same sign, with minimal changes in magnitude. Moreover, all significant variables remain significant.

Second, I reduce the period of analysis to the years in which 28 countries were part of the EU (Column 2 of Table 9). As summarised in Table 2, this is the period from 2013 until the end of 2019. In 2013 Croatia joined the EU, and on 1<sup>st</sup> of February 2020 the UK left the EU (European Commission, n.d.). It would be plausible that ODA from the EU Institutions would have a different effect in the baseline specification than in this reduced period, as not all destination countries were always part of the EU. However, all three ODA variables remain largely the same. The coefficient of Bilateral ODA increase in magnitude and keeps the negative sign. EU ODA and Other ODA remain non-significant. Some of the control variables, representing potential drivers of asylum seeker movements, change. The *GDP per capita* variable and the *Unemployment* variable are not statistically significant anymore, but the *Population* coefficient exhibits a strong and significant positive sign. Overall, the test confirms the baseline results.

Third, I test whether my findings are robust to the exclusion of all zero values in the *Bilateral ODA*, *EU ODA* and *Other ODA* variables, which reduces the observations by 47,529 (Column 3 of Table 9). Fourth, I exclude all the zero values in the dependent variable, asylum applications (Column 4 of Table 9). Fifth, following Dreher et al. (2019), I exclude all countries of origin from where less than 50 people have applied for asylum in the EU in the entire period (Column 5 of Table 9). The results are very similar to the baseline findings. Overall, the five robustness tests provide confidence in the reliability of the findings. But what do the findings of this econometric study actually mean – both for the people affected as well as for policy makers?

**Table 9***Robustness tests*

	(1)	(2)	(3)	(4)	(5)
	<b>Only DAC</b>	<b>2013-19</b>	<b>0 ODA</b>	<b>0 Asylum</b>	<b>Below 50</b>
Log Bilateral ODA (do,tx)	-0.0767** (0.0371)	-0.143*** (0.0497)	-0.0803** (0.0390)	-0.0611* (0.0371)	-0.0747** (0.0363)
Log EU ODA (o,tx)	0.00784 (0.178)	-0.178 (0.285)	-0.0142 (0.187)	0.00417 (0.178)	0.0126 (0.169)
Log Other ODA (o,tx)	-0.0302 (0.0947)	-0.171 (0.215)	-0.00426 (0.0885)	-0.0129 (0.103)	-0.0348 (0.0918)
Log Migrant stock (od,t-1)	0.459*** (0.0338)	0.455*** (0.0455)	0.461*** (0.0350)	0.424*** (0.0312)	0.445*** (0.0313)
Log GDP per capita (o,t-1)	-0.823*** (0.158)	0.565 (0.527)	-0.797*** (0.175)	-0.727*** (0.164)	-0.797*** (0.155)
Log Population (o,t-1)	-0.305 (0.370)	3.419*** (1.004)	-0.337 (0.389)	-0.155 (0.364)	-0.238 (0.363)
Log Unemployment (o,t-1)	0.303** (0.119)	0.0357 (0.329)	0.295** (0.125)	0.308*** (0.111)	0.306*** (0.114)
Log Political Freedom (o,t-1)	0.771*** (0.285)	1.195* (0.669)	0.692** (0.291)	0.652** (0.283)	0.767*** (0.280)
Log Natural Disaster (o,t-1)	-0.00959 (0.0387)	-0.00113 (0.0837)	-0.0181 (0.0435)	-0.0329 (0.0520)	-0.0200 (0.0387)
Conflict (o,t-1)	0.251** (0.0990)	0.227** (0.0991)	0.261** (0.104)	0.247** (0.115)	0.242** (0.0988)
Log Distance Cap. (od)	0.484* (0.270)	0.565* (0.316)	0.582** (0.282)	0.591*** (0.197)	0.493*** (0.183)
Com. Language (od)	0.805*** (0.220)	0.947*** (0.277)	0.801*** (0.220)	0.755*** (0.211)	0.766*** (0.209)
Colony (od)	-0.460* (0.255)	-0.494 (0.329)	-0.475* (0.254)	-0.461* (0.254)	-0.421 (0.256)
Observations	59360	20449	35626	26260	71742
Origin countries	127	123	123	121	121
Destination countries	22	28	28	28	28

*Note.* The dependent variable is asylum applications. Robust standard errors in parentheses. All time-variant control variables as well as the three variations of ODA are lagged by 1 year in every regression. All specifications include destination-year and origin fixed effects. Both Bilateral and EU ODA are instrumented with the previously discussed IVs.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## 6. Empirical Strategy II: Expert Interviews

Three expert interviews were conducted for the second part of this master's thesis. Two of the interviewees work for the European Commission and one for the International Organization for Migration. These interviews were conducted to present the results of the quantitative study to people working on the aid-forced migration nexus and to discuss and jointly interpret the results with them. Since this dissertation was concerned with the impact of a policy – aid disbursements – on forced migration and asylum applications, the results of this research should be echoed back to the people who work on, design or implement these policies. Furthermore, it is essential to ask what these results actually mean – how can we understand a decrease in asylum applications due to more aid payments? An academic and especially critical evaluation could lead to a different conclusion than a practitioner's assessment.

The semi-structured interviews lasted around 40 minutes each and were conducted via video call. The three interviews were carried out using the same interview form (Appendix B.1) but varied depending on the expertise and interests of the interviewees (as can be seen in the transcripts in Appendix B.2). Three general questions were asked at the beginning of the interview, followed by a short presentation of the results. These questions concerned their reflections about the interaction between development aid and refugee movements, the reasons for the EU's use of development aid in displacement crises, and whether practitioners are aware of the academic literature on the subject. The presentation included a brief explanation of the research design and displayed the five main findings related to the differential impact of ODA over time, in different regions, with respect to the GDP per capita of the aid recipient, and on the African continent over time.<sup>2</sup> The results were then jointly discussed based on 7 guiding questions. Finally, two questions were asked about the potential policy implications of these results and the interviewees' suggestions for future research.

As this dissertation focuses on aid from the EU Institutions and the EU Member States, people working in the relevant ministries of the Member States, in the Permanent Representations of the Member States to the EU and in the EC were contacted.<sup>3</sup> I predominantly approached

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<sup>2</sup> Note that one result is different in the presentation for the interviews and in the dissertation due to a revision in the specification of the model. The expert's specific reflections on this finding were generally excluded.

<sup>3</sup> However, as many of the contacted persons were high-ranking, I received only few positive replies.



people from the EC, as the EC works in the common interest of the entire EU and “is the EU’s politically independent executive arm” (EU Directorate-General for Communication, n.d., para. 1). Moreover, the EC “is alone responsible for drawing up proposals for new European legislation, and it implements the decisions of the European Parliament and the Council of the EU” (EU Directorate-General for Communication, n.d., para. 1). Thus, it is the institution most relevant for a discussion of the impact of aid disbursements from the EU Institutions and its Member States on asylum applications in the EU. In addition, a high-ranking employee of the IOM was interviewed due to his expertise on the development-displacement link. The IOM is the “leading intergovernmental organization in the field of migration”, and works on “developing effective responses to the shifting dynamics of migration and providing advice on migration policy and practice” (IOM, 2024, para. 1-2). Therefore, reflections from an expert in the IOM provide valuable insights into how practitioners interpret changes in asylum applications due to aid payments.

Within the EC, I interviewed people from two different Directorates-General (DGs), which are the departments working on different policies. The DG for International Partnerships (DG INTPA) is “responsible for formulating the EU’s international partnership and development policy, with the ultimate goal to reduce poverty, ensure sustainable development, and promote democracy, human rights, and the rule of law” (EC, DG for Communication, n.d., para. 1). The DG Migration and Home Affairs (DG HOME), is responsible for home affairs and migration, and works on the policy areas “Migration and Asylum”, “Internal security”, “Schengen, borders and visa” and “International affairs” (EC, Directorate-General for Migration and Home Affairs, 2024, para. 2-5). These two DGs thus cover both sides of the relationship that is the subject of this dissertation: development aid and asylum applications. The three interviews are anonymised according to their affiliation: *Interviewee1\_EC\_DGINTPA*; *Interviewee2\_EC\_DGHOME*<sup>4</sup>; *Interviewee3\_IOM*.

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<sup>4</sup> Note that this interviewee emphasized that they are talking on their own behalf, and not on behalf of the EC or DGHOME.

## 7. Discussion

This section brings the main findings of the econometric analysis into conversation with the insights and reflections from the expert interviews. This mixed-methods approach draws on the benefits of qualitative and quantitative data, and the findings that can be achieved by it. The discussion section is structured along the lines of three main questions: 1) What do the findings mean for displaced persons? 2) Why is it happening? 3) What are the policy implications?

### 7.1. Discussion: The Real-Life Implications

First, it is important to translate what the results of the PPML-IV estimation mean in reality. If a 1% increase in bilateral ODA in the previous year is associated with a 0.0736% decrease in asylum applications from 139 countries in the EU, this seems rather abstract. However, aid flows and asylum seeker movements are not just data entries but real phenomena. For example, Germany disbursed US\$ 13,109 million in ODA to the 139 origin countries in 2018 and received 156,178 asylum applications in 2019. Thus, a 1% increase in Germany's bilateral ODA budget means an increase of US\$ 131 million. A 0.0736% decrease in asylum applications in Germany equals to 115 less claims for asylum. This reveals that lowering asylum application in the EU with development aid is expensive. If the ambition of policy makers is to decrease asylum applications in Germany for example, one application less would cost US\$ 1.14 million. But what does one less asylum application in the EU mean?

A reduction in asylum applications in the EU due to bilateral aid does not imply that there is actually less displacement worldwide. The descriptive statistics in Figure 1 showed that the changes in asylum applications in the EU do not mirror worldwide changes. As discussed in Section 3.2., data on the asylum seeker movements to the donor countries only provide insight into the effectiveness of donors' potential ambition to "discourage refugees from moving to their country" (Dreher et al., 2019, p. 131). Less people may apply for asylum in the EU if there are less conflicts in general, but the dissertation's approach cannot assess if there are actually less conflicts and displacement overall. This is especially important, as *Interviewee1\_EC\_DGINTPA* noted that, "the majority of people who are forcibly displaced in Asia or in Africa do not intend to reach Europe. They stay in the region". "People are not just moving South-North", according to *Interviewee3\_IOM*. To reiterate, while ODA payments

from the EU Member States are associated with a decrease in asylum applications in the EU, this does not provide any indication for aid's effect on the occurrence of displacement towards other regions. So, how can this finding be evaluated?

When presented with the result that an increase in ODA is associated with a decrease in asylum applications, *Interviewee3\_IOM* stated that “essentially, it’s a great finding”. However, *Interviewee3\_IOM* also stressed that “trying to stop asylum, trying to stop migration [to the EU], I think that’s problematic”. Similarly, *Interviewee1\_EC\_DGINTPA* said “I don’t think that we should consider asylum applications towards us as an issue in itself.” “People don’t want to be displaced” *Interviewee3\_IOM* pointed out, thus aid’s “rationale should be to give people more agency”. If ODA provides more agency to people, this would be a positive finding. Among quantitative researchers, the “root causes approach” has been rationalised as an attempt “to reduce migration aspirations, making more people stay in their country of origin voluntarily because their welfare at home improves” (Fuchs et al., 2023, p. 38). This would therefore be a more ethical approach than to tie development aid to the restriction of mobility through stricter border controls (Fuchs et al., 2023). However, in the context of an “intensification of measures to ensure the ‘outsider’ cannot reach western shores” (Sajjad, 2018, p. 42), there is not just one approach for aid use, but a plethora of strategies. Besides, if aid contributes to a rise in internal displacement, as Dreher et al. (2019) found, this would neither increase people’s agency nor reduce migration aspirations but would be detrimental for people on the move. It is therefore important to discuss why aid is associated with reduction in asylum applications in the EU.

## **7.2. Discussion: The Potential Mechanism**

The expert interviews indicate that the prevailing notion in policy circles of how aid reduces displacement corresponds to the development channel proposed in the quantitative migration literature. Table 10 summarises that, according to the four main channels proposed in the empirical literature, aid can only reduce ‘voluntary’ migration through the development or the instrumentation channel (Marchal et al., 2022). Section 2.2. discussed how these theories could apply to forced migration and asylum seeker movements. Following the developmental channel, aid increases incomes (and improves the political situation) in the countries of origin and therefore reduces the ambitions or need to migrate (e.g. Borjas, 1989; Böhning & Schloeter-Paredes, 1994). This is in line with *Interviewee1\_EC\_DGINTPA*'s response that

“when a donor works towards (...) eradicating poverty, (...) towards the completion of the SDGs, we kind of contribute to addressing (...) the potential refugee issue”. Furthermore, *Interviewee1\_EC\_DGINTPA* explained that “everything that can contribute to mitigating the risk of conflict, of human rights violations, certainly contributes to mitigating the risk of displacement”. Similarly, *Interviewee3\_IOM* stated that the approach behind European donors’ development aid towards displacement crises, is “simply put, to prevent failed states”. This resonates with the idea that aid improves development and reduces (forced) migration. However, “addressing the root causes of potential forced displacement is very difficult to measure”, according to *Interviewee1\_EC\_DGINTPA*. This is in line with the different and often contradictory effects identified in the econometric analysis, depending on the donor, economic development of the recipient, region and time span.

**Table 10**

*Theories on how Aid influences Migration through specific Channels*

	Budget Constraints	Development	Information	Instrumentation
	Not Donor-Specific		Donor-Specific	
<b>Effect on Migration</b>	<i>Increase +</i>	<i>Decrease -</i>	<i>Increase +</i>	<i>Decrease -</i>

*Note.* This table is based on the article by Marchal et al. (2022).

The varied results for the three donor groups – the EU Member States, the EU Institutions or other OECD countries – show that there is no uniform effect of ODA on asylum applications. Rather, the “personality” of the donor appears to shape the effect. Table 11 summarises the results from the PPML-IV where ODA is lagged by one year. ODA provided by the EU Member States always has a negative effect on asylum applications in the EU (or none). The short-term impact of ODA from the EU Institutions is positive in the different specifications, besides if provided to European countries. The effects of EU ODA are always opposite to that of other donors. Besides, EU ODA and Bilateral ODA also have opposite effects in Africa. *Interviewee2\_EC\_DGHOME* said, “I was curious about the difference between the bilateral aid and the EU institutions aid. (...) That surprised me while listening to you”.

**Table 11***Overview of the effects of ODA on asylum applications – one-year lag*

	Bilateral ODA	EU ODA	Other ODA
Full sample	<i>decrease -</i>	<i>none</i>	<i>none</i>
GDP pc above median	<i>none</i>	<i>none</i>	<i>none</i>
GDP pc below median	<i>none</i>	<i>increase +</i>	<i>decrease -</i>
Africa	<i>decrease -</i>	<i>increase +</i>	<i>decrease -</i>
Asia	<i>none</i>	<i>increase +</i>	<i>none</i>
Europe	<i>none</i>	<i>decrease -</i>	<i>increase +</i>
America	<i>none</i>	<i>none</i>	<i>decrease -</i>

*Note.* The descriptions on the left side of the table indicate the different sample variations. The table is based on the results presented in Section 5.

Following to the information channel, aid from the EU Institutions and Member States would always have a different impact than that of other donors, but this is not reflected in the results. The information channel proposes that an increase in aid encourages more contact networks between potential migrants and aid workers and provides more information about the donor, thus increasing mobility from the aid recipient country to the donor (Berthélemy et al., 2009; Menard & Gary, 2018). If this applies to asylum seeker movements as well, aid from the US, Canada or Japan would attract more people in search of protection to these donor countries, resulting in less applications in the EU. Aid from the EU and the Member States would then contribute to more applications in the EU, making the contrasting results plausible. However, as Table 11 and 12 summarise, the impact of ODA from the Member States is often opposite to that of the EU Institutions. As the effect of bilateral aid is always negative, the information channel is unable to adequately explain the connection between development aid and changes in asylum applications in the EU.

The contrasting results for ODA disbursed to countries of origin with a lower and higher GDP per capita imply that aid's effect is 'origin specific' and indicate that there might be a *forced migration hump* (see Martin & Taylor, 1996; Betts et al., 2023). Following theories on the mobility transition, the relationship between economic development and migration is non-

linear, and aid to countries with lower income levels would increase emigration by loosening budget constraints, but in countries with higher income levels it would decrease income differentials and lower the ambition to emigrate (e.g. Skeldon, 1997; De Haas, 2007; Clemens, 2014). As this dissertation focuses on people who apply for asylum, it is important to recall that “displaced naturally means you’ve been pushed out (...) against your own will” (*Interviewee3\_IOM*). *Interviewee3\_IOM*, stressed that development aid should “give people more agency”. If budgetary constraints limit people’s ability to flee to the EU from lower-income countries, aid could potentially improve people’s agency by providing additional income through employment projects. Therefore, aid to lower income countries would result in more asylum applications in the EU. Indeed, as shown in Table 12, ODA from the EU and its Members States to lower income countries either increases asylum applications in the EU or has no statistically significant effect. However, if aid is successful in “addressing some of the root causes of forced displacements, [by] building resilience, (...) a rule of law, (...) enhancing the agriculture system, (...) the health system”, as outlined by *Interviewee1\_EC\_DGINTPA*, it could decrease asylum applications. Assuming that this is more likely to be achieved in countries with higher incomes, this would be consistent with the results in Table 12, which show that after three years, bilateral and EU ODA are associated with a decrease in asylum applications from countries with a GDP per capita of over US\$ 2980.

A rise in asylum applications in the EU could also result from aid causing a deterioration in the situation in the origin countries, thus generating more displacement. Following theories on ‘voluntary’ migration, aid either increases emigration due to an *attraction effect* related to more information about the donor (Massey, 1990; Berthélemy et al., 2009;) or by loosening budget constraints (Skeldon, 1997; De Haas, 2007). As discussed above, an *attraction effect* of aid for asylum seekers is not supported by the evidence provided in this thesis. Moreover, if aid would reduce budgetary constraints of asylum seekers, this would have to be a rapid and substantial increase, as migration to the EU is costly, especially if it is via unofficial routes. Crossing the Mediterranean Sea from Libya into Europe, for example, costs people from Syria around US\$ 2,000 on average (Reitano & Tinti, 2015). The theories on ‘voluntary’ migration therefore seem unsuitable to explain a short-term increase in asylum applications due to aid disbursements. Following the logic that aid could be ineffective in improving the welfare of (future) displaced persons, asylum applications in the EU could increase despite the disbursement of aid. *Interviewee3\_IOM* outlined that “people [are] living in protracted displacement between 10

and 26 years on average”, and if development aid “is not getting to those people (...) they’re still (...) willing to take those risks” of a flight. However, this would be represented by a not statistically significant coefficient in the PPML-IV, rather than of positive effect. Therefore, it seems most plausible that an actual deterioration in the situation on the ground due to aid inflows could explain a positive effect. Zürcher (2017, p. 518) observed that “aid injected in insecure regions is likely to increase violence”. In addition, aid payments have been found to reduce the incentives of governments, especially in poorer countries, to prepare for disasters and minimise the impact on its population (Raschky & Schwindt, 2016).

**Table 12**

*Overview of the effects of ODA on asylum applications – three-year lag*

	Bilateral ODA	EU ODA	Other ODA
Full sample	<i>decrease -</i>	<i>none</i>	<i>none</i>
GDP pc above median	<i>decrease -</i>	<i>decrease -</i>	<i>increase +</i>
GDP pc below median	<i>none</i>	<i>increase +</i>	<i>decrease -</i>
Africa	<i>decrease -</i>	<i>increase +</i>	<i>none</i>

*Note.* The descriptions on the left side of the table indicate the different sample variations. The table is based on the results presented in Section 5.

Different strategic motivations could also be at the root of the divergent effects of the three donors’ ODA disbursements. *Interviewee3\_IOM* said that “the country itself is probably looking at where their top asylum applications are coming from and arguably targeting those countries”. “If the goal for them is to reduce those asylum applications, they need to spend time working on those countries, whereas [the] EU [is] representing all broader 27 member states. Maybe it is more focused on the composite” regions (*Interviewee3\_IOM*). The “EU delegation will not have the same political objectives as (...) an EU Member State that knows that the top asylum application is from Syria”, *Interviewee3\_IOM* stated. However, *Interviewee2\_EC\_DGHOME* reported that for certain trends in asylum applications “the member state involved pushes a lot for it to become (...) a topic to be addressed very soon at a political level”. While EU aid projects, like the *EUTF for Africa*, which addresses “the root causes of destabilisation, forced displacement and irregular migration” (Agreement

Establishing the EUTF for Africa, 2015, p. 8), might pursue a similar goal like individual countries, the approach might be less tailored to certain origin countries. In contrast, *Interviewee1\_EC\_DGINTPA* reacted to my research approach by stating that “the assumption (...) or the linkage that you’re making between addressing the root causes and looking at the movements towards the region – I don’t see clearly that link.” However, widely cited research found that Western donors predominantly provided development aid to origin countries if asylum seekers physically reached the donors (Czaika and Mayer, 2011). Moreover, “the reorientation of Europe’s development funds toward the curbing of migration” has been described by Shenfeldt (2018, p. 200), as “EU policy papers put forth development aid as a leverage for migration control”. As other donors such as the US, Canada or Japan may not aim to stem migration to the EU with their ODA, it could have a different impact.

There are substantial regional differences in aid’s short-term impact on asylum applications in the EU. As can be seen in Table 11, EU ODA contributes to more asylum applications from African and Asian countries, and less from European countries but has no effect in American countries. “The situation will be different from one country to the other”, *Interviewee1\_EC\_DGINTPA* explained, “so we need to tailor our development assistance to each context”. Moreover, the EU has “to limit the type of intervention that can be provided in a country affected by an active conflict”, whereas if a “conflict is of lower intensity, then the different means at our disposal will be probably higher and we will be able to work towards addressing the root causes in a more structured manner” (*Interviewee1\_EC\_DGINTPA*). In addition, a temporal dimension which, for example, could explain the short-term non-statistically significant influence of bilateral ODA in regions besides Africa, was repeatedly stressed. *Interviewee3\_IOM* stated that “you cannot expect immediate results” of development aid. Moreover, *Interviewee1\_EC\_DGINTPA* said, “I don't think that within the time frame of three, four years, you can see a huge impact on the grounds. This takes decades”. Not only can the benefits of aid projects take years to materialise, but the time between fleeing the country of origin and applying for asylum in the EU can also be very long. *Interviewee3\_IOM* stated for example that “a lot of asylum seekers may be spending a significant amount of time in transit countries”, sometimes, “they’re actually in the transit country for decades”.



### 7.3. Discussion: Policy Implications

Before concluding, this dissertation offers two brief policy implications. This dissertation examined whether a policy – development aid – is effective in influencing a phenomenon – asylum applications in the EU. This was undertaken in the context of little academic literature addressing this precise relationship and a lack of consensus about the effect. This contrasted with the conviction of many politicians, as presented in the introduction, that aid can minimise the root causes of (forced) migration. Zaun and Nantermoz (2022, p. 512) summarise this as a “disconnect between the EUTF’s self-proclaimed ‘evidence-based’ approach and its reliance on a pseudo-causal narrative contradicting widely accepted scholarly findings.” When asked if European policy makers engage with the academic literature, *Interviewee3\_IOM* answered, that “people are very aware of it” but the “problem is always just too much literature and the time for people to get around to it”. *Interviewee1\_EC\_DGINTPA* said, “I’m sure that the experts that were in charge of drafting the policy were aware of the academic literature on refugees,” but “I don’t think that we have (...) considered revising the policy based on more recent literature”.<sup>5</sup> In light of the diverse and often conflicting impacts of ODA identified in this thesis, the first recommendation is that academic research on the relationship between aid and forced migration should play a greater role in policy development.

Second, the strategy to combat root causes of (forced) migration with aid disbursements should be fundamentally reconsidered. *Interviewee2\_EC\_DGHOME* stated, once “a deeper understanding of all the different factors” has been established “then it’s a matter of getting that to policymakers”. This dissertation provided robust evidence that reducing one asylum application in the EU involves a significant cost. An increase of Germany’s aid budget by US\$ 1.14 million is associated with one less asylum application. Besides, while the impact of the ODA disbursed by the EU Institutions and the Member States leads to a reduction in asylum applications in some cases, it is also associated with an increase in many other cases. Such an increase could be due to a deterioration in the situation in the countries of origin, which indicates that great care is required for aid projects that address root causes of migration. Besides, as the expert interviews have shown, the goal of aid should not be to lower applications in the EU. Thus, revisiting and revising “root causes” aid projects is necessary.

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<sup>5</sup> Note that she is not referring to the *EUTF for Africa* but the EU Communication *Lives in Dignity*.

## 8. Conclusion

In a mixed-method approach, this dissertation engaged with the effect of development aid on asylum seeker movements. First, the causal relationship between ODA and asylum applications in the EU was identified by estimating a gravity model of international migration using a PPML estimator with instrumental variables. Second, these econometric results were presented to practitioners in the EC and the IOM to interpret the findings, discuss their implications and reflect on the possible mechanism. In doing so, this dissertation contributed to an emerging academic debate on the effect of development aid on forced – rather than ‘voluntary’ – migration. To date, the impact of aid on asylum seeker and refugee movements has been studied only to a limited extent in quantitative migration research, producing mixed results. This dissertation’s contribution is particularly relevant because the disagreement in the literature contrasts with a marked consensus among European policy makers, who invest large sums of aid in addressing the root causes of displacement. The *EUTF for Africa* is only one example of such strategies, which have also been proposed among EU Member States.

Using a large panel dataset that includes bilateral asylum applications from 139 countries of origin in 28 EU Member States as well as bilateral ODA and EU ODA disbursements over the years 2000 to 2022, it was shown that bilateral aid reduces asylum applications in the EU. The result that a 1% increase in the ODA disbursed by the EU Member States is associated with a 0.0736% decrease in asylum applications in the EU in the subsequent year finds confirmation by some publications, like Fuchs et al. (2023) while contradicting others, like Dreher et al. (2019). An econometric analysis of the impact of ODA from the EU Institutions on forced migration has so far been missing from the empirical migration literature. The result that EU ODA has no statistically significant association with asylum applications in the full sample of origin countries therefore adds novel insights to the literature. The inclusion of instrumental variables, a wide set of control variables and appropriate fixed effects ensured these results are not biased by reverse causality or omitted variables.

Various further analyses were carried out to investigate the temporal dynamics, identify regional differences and determine the role of the economic situation in the countries of origin. The expert interviews have shown that in policy circles the idea, academically known as neoclassical theories of migration, prevails that aid contributes to the development of a country

and thus reduces (forced) migration. In the context of combating the root causes of displacement, however, it is not only a question of eradicating poverty but also of preventing conflict and human rights violations, or state failure, in the broader sense, as the expert interviews showed. However, the econometric analyses of two separate panels, where one group of countries had a GDP per capita above the median of US\$ 2980 and the other below, indicated that the relationship between aid, development and asylum applications might be non-linear. Thus, a *migration hump* (Martin & Taylor, 1996) might also apply in some extent to forced migration. The idea of a *forced migration hump*, however, cannot be proposed with certainty, as this thesis does not further explore the mechanism, the expert interviews point at other likely mechanisms, and it contrasts with a recent publication by Murat (2020). Therefore, this dissertation follows Betts et al. (2023, p. 2670) and proposes that more research is necessary to explore “to what extent the ‘migration-hump’ relationship applies to refugees”.

This dissertation adds to the literature by providing a detailed analysis of South-North asylum seeker movements in the context of EU aid disbursements to origin countries, with a period of analysis long enough to include the aftermath of the so-called ‘European refugee crisis’. However, this focus also presents three clear disadvantages that leave room for future research. Following the presentation of my findings, *Interviewee3\_IOM* asked, “is this something that is about Europe as a donor and as a continent?” The first shortcoming of this thesis is that, while it can respond to the question that these are dynamics specific to the EU as a donor and destination, it cannot generalise that its findings apply to South-North asylum seeker movements as a whole. The second limitation of this dissertation’s approach is that it does not warrant a conclusion on the impact of ODA on South-South refugee mobility or towards other regions in the world. As shown in descriptive statistics, and highlighted in the expert interviews, movements towards the EU only represent a fraction of worldwide forced displacement. Thus, future research should engage with the impact of development aid on other mobility dynamics than towards Western countries. The third shortcoming is that this thesis analysed aid to countries of origin, which does not provide any insight about the impact of aid to transit countries linked to stricter border controls or pull-backs of people on the move.

In an effort to capture regional dynamics, the econometric results for regressions that included countries of origin from the same regions of the world were compared to each other. It was

found that the development aid of the respective donors – EU Member States, EU Institutions or other OECD countries – had different regional effects on asylum applications. Due to the large amounts of money that are spent through the *EUTF for Africa*, which addresses “the root causes of destabilisation, forced displacement and irregular migration” (Agreement Establishing the EUTF for Africa, 2015, p. 8), the temporal dimension of aid to Africa was analysed. Counterintuitively, the PPML-IV has shown that a 1% increase in the ODA from the EU Institutions in the previous year is associated with a 0.752% increase in asylum applications from African countries. This finding suggests that development aid from the EU Institutions to African countries is not an effective instrument to reduce movements towards the EU.

As the *EUTF for Africa* only expired at the end of 2021 (European Union, 2024), future research will establish if this also holds in the long-term. This dissertation engaged with the short- and medium-term effect of ODA, and as *Interviewee1\_EC\_DGINTPA* said it is unlikely that “within the time frame of three, four years, you can see a huge impact on the ground”. In addition to considering longer time frames, more studies are needed to examine the effect of disaggregated aid flows to different sectors, rather than overall ODA disbursement (see Lanati and Thiele, 2024). The most important avenue for future research on the political economy of forced migration, however, is to analyse how development aid affects the lives of people. Such studies can contribute to the creation of development policy strategies that will genuinely benefit people and are not geared towards reducing or managing migration of any kind.

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