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From empire to aid

Analysing persistence of colonial legacies in foreign aid to Africa

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Abstract: For decades now, Western development agencies and donors have been castigated for their colonial biases in providing aid to Africa. It is well established that donors provide considerably more foreign aid to their former colonies relative to other countries in the region. However, what happens over time to the influence of the former-colonizer-turned-donor within the aid recipient countries? Does their influence become stronger over time due to early and significant contributions, or does it decline with the emergence of other contemporary donors? Additionally, do these colonial legacies evolve differently depending on who the former colonial power was? Using a statistical analysis of the OECD Creditor Reporting System database, I show that the persistence of colonial legacies in aid, measured through donor concentration, is declining over time across all aid recipient countries. However, the pace of decline varies: former French African colonies, while more concentrated at any given time, see this concentration decrease faster compared with former British African colonies. These trends are influenced by the growing number of donors, France's morphing Françafrique policy, and the ongoing influence of former colonizers through military and trade avenues. By drawing on interdisciplinary approaches, this research attempts to empirically measure persistence of colonial legacies across Africa and help inform policy strategies for reforming aid practices by understanding the broader trends.

Key words: measuring colonial legacies, foreign aid, donor concentration, Africa

Note: As the research is part of the author's PhD thesis, she will hold copyright to facilitate publication of the thesis.

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1 Introduction

> The very name of the Foreign, Commonwealth (formerly 'Colonial') and Development Office is anchored in the past. A new Department for International Affairs (or Global Affairs UK) would signal a potentially quite different role. The physical surroundings on King Charles Street also hint at the Foreign Office's identity: somewhat elitist and rooted in the past. Modernising premises—perhaps with fewer colonial era pictures on the walls—might help create a more open working culture and send a clear signal about Britain's future? (UCL 2024)

The UCL Policy Lab's report 'The World in 2040: Renewing the UK's Approach to International Affairs', published in April 2024, garnered widespread coverage in popular media. Drawing on inputs from former British ministers, national security advisers, permanent secretaries, ambassadors, and other senior officials, the report sent a strong but simple message to the United Kingdom's Foreign Office: confront the colonial legacy head on.

For decades now, Western development agencies and donors have been castigated for their colonial biases (Easterly 2006). As literature extensively shows, donors provide considerably more foreign aid to their former colonies than to other countries (Chiba and Heinrich 2019). Extending this logic, one might expect diametrically opposite trends with respect to how colonial legacies within aid recipient countries evolve. On the one hand, the influence of the former colonizer could remain significant over time owing to their central role as the earliest and largest donor. On the other hand, more donors could start providing aid to the formerly colonized countries and start diminishing the role of the former colonizer. This puzzle points to an important question: what is happening to colonial legacies in foreign aid over time and are former colonizers actually increasing or declining in importance?

While the question above gets at a generic trend, important differences also exist among the former-colonizers-turned-donors. The former colonial empires, especially France and Britain who controlled the most number of colonies across Africa, left behind vastly heterogeneous institutions and policies. This had significant effects on how trajectories of foreign assistance, among others, evolved in these countries following decolonization. To this end, I pose a follow-up question: does the increase/decline in colonial legacies vary depending on who the former colonial power was?

These questions are particularly relevant for the African continent, which was almost completely colonized by various European empires. The continent is often at the epicentre of normative debates on colonial legacies in aid, with donor strategies such as Françafrique serving as a not-too-subtle reminder of the colonial past. Additionally, Africa has received over US$1 trillion in foreign aid till date (Moyo 2009) and continues to receive a major share of the global foreign aid allocation each year (One Campaign 2024). For these reasons, I restrict the scope of the paper to the African continent to investigate the trends around colonial legacies and its variation across different former colonial powers.

By analysing aid funding flows between 1971 and 2021 from OECD donors to Eastern, Western, Central, and Southern African countries, I find a startling general trend: colonial legacies, as measured through donor concentration, is declining over time. I also show that the rate of secular decline in colonial legacies (or concentration) varies depending on who the former colonizer was. Aid assistance in former French colonies, while still following a pattern of overall decline, is far more concentrated relative to aid in former British colonies at a given point in time. This implies that the French colonies in the African continent are disproportionately affected by enduring

colonial legacies in foreign aid. That said, concentration in former French colonies appears to decline at a faster rate relative to former British colonies, which speaks to the morphing role of France in these countries. While I critically evaluate explanations potentially guiding this variation, causality is not tested owing to data limitations. Additionally, factors such as the number of years since independence and volume of US military assistance are found to significantly influence persistence of colonial legacies, highlighting the role of external dynamics in this phenomenon.

By advancing these findings, this paper makes the following contributions to the literature on foreign aid. First, most studies treat colonial history as yet another covariate in a laundry list of potential factors that could influence foreign aid. In doing so, the concept is oversimplified and stripped of any nuance such as its continuity, persistence, stickiness, etc. Through this research, I introduce new systematic evidence on persistence of colonial legacies, how it evolves over time, and what variations exist across the former colonizers through the concept of 'donor concentration'. Second, by exploring lesser-studied but influential factors that drive persistence of colonial legacies in foreign aid, such as US military assistance, I demonstrate that actors and variables beyond the former colonizers themselves also significantly influence the aid landscape. Finally, these findings also aim to inform policy debates on decolonizing development assistance to Africa by introducing nuanced empirical evidence.

The rest of the paper is structured as follows. In the following section, I present the historical backdrop of how former colonizers transitioned into the roles of aid donors, especially in their former colonies in the immediate aftermath of decolonization. Understanding this trajectory provides valuable insights into the origins of foreign aid to Africa, thereby helping establish the reference point for examining persistence of colonial legacies over time. Following this, I draw on literature from the disciplines of comparative politics and development economics to present the state of scholarly debates on these topics and highlight the gaps. Drawing from these gaps, I present the main hypotheses in Section 3. Following this, I outline how these hypotheses are measured, discuss their validity, explain the data sources and their limitations, and present the estimation techniques used in Section 4. Then, results from the regression models and potential explanations guiding these trends are provided in Section 5, followed by the conclusion in Section 6 that summarizes the main findings and avenues for future research.

2 Background

Following the wave of decolonization in the 1960s and 1970s across Africa, development assistance (as the term is understood in the modern sense) came into being. In the section below, I explore how different former colonizers transitioned to their role of modern-day donors, what institutions and policies were set up to facilitate this, and what motivations guided their aid allocations. Understanding these nuances will help contextualize the research questions surrounding persistence of colonial legacies, how it manifests, and why it matters. I start by examining the evolution of French and British development assistance as they historically controlled the largest colonial empires in Africa (Thomas 2014).

2.1 French development assistance

Following the Second World War, as it became evident that the era of colonial empires was coming to an end, France's relationship with its colonies drastically changed. Instead of directly favouring decolonization, France initially experimented with the notion of the 'French Union' in 1946, which espoused a federalist structure between the metropole (France) and its other territorial holdings (Carson 2022). Colonies were renamed as '*territoires d'outre-mer*' (or overseas territories) and a new

Union Constitution was drafted in 1946. This Constitution claimed that the inhabitants within the colonial empire would have the 'qualities' of French citizens, but did not grant universal suffrage. Moreover, it did not clarify whether a citizenship with the French Republic can be claimed (Cooper 2011). In practice, the French parliament continued to de-facto retain authority over the colonies, and the French Union experiment was largely deemed a failure (Cooper et al. 2009). Subsequently, the idea of a 'French community' was embraced instead of assimilation, which sought to grant autonomy to the colonies. Here, the federalist structure was retained but the colonized countries were expected to form their own government while remaining a part of the broader French-centric structure (Cooper et al. 2009). The community effectively ceased to exist by the 1960s when most African countries declared independence and left the grouping.

As these political developments were taking place, centralized institutions guiding overseas French foreign assistance were simultaneously morphing. The Ministère des colonies (Ministry of Colonies) paved way for interim institutions such as the Ministère pour les départements non métropolitains (Ministry for Departments outside Metropolitan France). Eventually, what is understood as the modern-day Ministère des affaires étrangères (Ministry of Foreign Affairs), Ministère de l'outre-mer (Overseas Ministry), and Ministère de la coopération (Ministry of Cooperation) were established around 1960. Interestingly, the Ministry of Cooperation inherited many elements from the Ministry of Colonies, including its building, from which it continued to operate out of until 2009 (Pacquement 2010). However, the evolution of French assistance to Africa was not a linear process and was actively shaped by the political developments within France. In the aftermath of 'Free France' in 1941, the Caisse centrale de la france libre (CCFL; Central Fund of Independent France) was set up to manage revenues and currency circulation in Africa and other regions. In 1944, CCFL transitioned to the Caisse centrale de la france d'outre-mer (CCFOM; Central Finance Corporation for Overseas France) and its mandate was also extended to the domain of development. During this time, France's Ministry of Colonies was active but CCFOM's experts, many of whom participated in the French Resistance movement, approached aid differently and viewed it as an economic issue. Eventually, the Fonds d'intervention pour le développement économique et social (FIDES; Fund for Social and Economic Development) was set up to distribute grants and loans to overseas territories from the state's budget, with CCFOM playing an active role within it. While FIDES' activities laid the foundation for the work of the Ministry of Cooperation, CCFOM morphed into the Caisse française de développement (CFD; French Development Fund) in 1992 and was renamed Agence française de développement (AFD; French Development Agency) in 1998 (Pacquement 2010). Today, AFD is seen as the country's main public institution that contributes to the implementation of 'France's policy in the areas of development and international solidarity' (AFD 2024).

In the decades following decolonization, French aid to the 'former' colonies in Africa quickly became distinct for a few reasons. First, France explicitly sought to maintain a sphere of influence over its former colonies using the strategy of 'Françafrique' (a term first used during the time of French President Charles de Gaulle) (Medushevskiy and Shishkina 2022). The strategy assumed that France, despite the abandonment of the colonies, should retain the right to develop African resources and markets as the ex-metropolis. This was achieved through monetary means (introduction of the CFA Franc to ensure economic unity with the ex-metropolis with France retaining veto over the monetary policies), military means (through active military interventions in conflict-affected countries), development assistance (by *coopérants* or 'advisers' occupying higher echelons of administration and leading health, education, and other sectors), and social means (promotion of French language and culture), among others (Smith 2013). This made development assistance broadly a part of French foreign affairs. Second, the French interventionist approach led to a clear prioritization of African Francophone territories over time. Throughout the 1980s, Francophone Africa received around 80% of all French official development assistance (ODA)

allocated to the continent (Schraeder 1995). This continues till date whereby the 'priority' countries determined by the French government continue to receive a sizeable chunk of its annual ODA (AFD 2024).

2.2 British development assistance

Britain, similar to France, had a complex evolution of aid institutions following the wave of decolonization. The Colonial Office that existed until 1966 merged with the Foreign Office in 1968 to create the Foreign and Commonwealth Office (FCO). As this happened, the pre-existing Department of Technical Cooperation started to fade away (Pacquement 2010). Additionally, in 1964, the Overseas Development Ministry (ODM) was set up by the Labour Party in the immediate aftermath of its election win (Dimier and Stockwell 2023). The ODM aimed to 'rationalize and optimize' British aid, and in doing so, distinguished itself from its preceding colonial institutions. While the Foreign Office continued to stress the links between Britain's overseas political interest and aid, the ODM masked these considerations with more objective-sounding technical framings of modernization theories and economic take-off (Krozewski 2015). By late 1960s, owing to Britain's own financial difficulties, aid increasingly became 'tied'. By 1970, almost half of the British Commonwealth aid was tied (meaning that imports financed by British aid were restricted to goods and services originating in the United Kingdom) (Wittkopf 1977). While the practice of tied aid continued well into the 1980s, it fell in the 1990s and was abolished altogether in 2001 (Killick 2005).

Dialling back, following the Conservative Party's success in the general elections of 1970, the ODM was quickly demoted to a department within the FCO. As scholars note (Clarke 2018), British aid policy was, and continues to be, massively swayed by the party in power. The consensus in the 1970s turned towards using British aid to generate business for struggling industries and strategically increasing multilateral aid through institutions such as the European Economic Community and the World Bank to strengthen Britain's influence (Krozewski 2015). The growing use of multilateral channels by Britain was also highlighted by Cumming (2017) who notes that while British aid was concentrated on former colonies akin to French aid, it differed in its close alignment to the World Bank and 'Washington Consensus' views of development.

In 1997, the Department for International Development (or DFID) was created as a fully independent government ministry responsible for international development policy and implementation. This independent set-up sustained until 2015 when two important changes occurred: (i) a growing percentage of development spending was controlled by other departments outside of DFID; (ii) non-development objectives increasingly took centre stage as demonstrated by the 2015 aid strategy co-authored by the Treasury and DFID. The strategy moved UK aid policy from solely focusing on poverty to a four-pronged approach, of which poverty was the last of the four objectives. Subsequently, in a move marking a clear primacy of geopolitical interests, DFID was merged with FCO in 2020 to create the Foreign, Commonwealth and Development Office (Dissanayake and Calleja 2024).

While the overarching trajectories of French and British development assistance may seem comparable in that foreign aid evolved to prioritize the donor's strategic interests, some critical distinctions exist. Notably, the Françafrique policy set France on a different trajectory relative to Britain's emphasis on strengthening 'British influence' through bilateral and multilateral fora. Additionally, the institutions in-charge of development in both countries evolved based on varied motivations and prioritized different foreign aid tools such as tied aid, technical assistance, etc.

2.3 Assistance from other former colonial powers

Besides France and Britain, which significantly influenced foreign aid to Africa following decolonization, other former colonial powers such as Belgium, Portugal, Germany, and Spain also exerted considerable influence despite controlling fewer colonies. Belgium, for instance, anchored its foreign policy on economic interests by viewing itself primarily as a 'trading state' (Daems and Van de Weyer 1993). This perspective was evident in Belgium's prolonged use of tied aid to benefit its domestic businesses, and its delayed adoption of OECD and UN donor norms, with substantial reforms only emerging in the 1990s (Breuning 2016). The aftermath of the Rwandan genocide and instability in Burundi and the Congo led Belgium to suspend aid to these countries and encounter challenges in reestablishing aid relationships in the 1990s. Belgium also sought to sustain an influential presence in its former African colonies, evidenced by its ambition to 'play a major role in central Africa' (Breuning 2016).

In contrast, Portugal stands out as a relatively modest and recent donor. Despite being a founding member of the Development Assistance Committee (DAC) in the 1960s, Portugal later withdrew from the group during its turbulent transition to democracy and temporarily became an aid recipient due to the internal crises. During Portugal's transitional phase to democracy, various government departments engaged in aid activities, albeit in an uncoordinated manner. By the 1980s, Portugal's aid programme began to expand more systematically, although internal coordination issues persisted. Portugal eventually rejoined the DAC in 1991. Despite its position as one of the smallest economies among DAC members, Portuguese aid predominantly flowed bilaterally, with a strong focus on its former colonies and funding key sectors including education and institution-building (Raimundo 2014).

Germany and Spain, which both controlled fewer colonies in Africa relative to the other empires, remained influential. As Hofmeier (1986) noted, German aid policy historically lay between the 'hardliners' and the 'progressives'. It was motivated by different elements including supporting German economic interests, containment of the Union of Soviet Socialist Republics (USSR), humanitarian motives, and emancipatory efforts for the 'third world'. Similarly, Spain maintained a close link with Equatorial Guinea (a former Spanish colony) as one of its major donors and was actively involved in aid projects across North Africa.

Thus, while former colonial powers all prioritized their former colonies for foreign aid, how the aid was provided and the considerations that drove the aid allocations varied. A variety of factors influenced foreign aid, including their own foreign policy objectives, economic interests, and domestic political and strategic considerations, both at home and in aid recipient countries. Crucially, these factors guiding aid allocation intersected with broader geopolitics, especially during the cold war era when the rivalry between the United States and the USSR was prominent. In this light, I delve into the role of the United States in the evolution of development assistance to the African continent (Dietz and Houtkamp 1995).

2.4 US involvement

Gibbs (1995) notes that the US government began to take an interest in Africa as a 'response to decolonization, rather than as a supporter of it'. Between the mid-1940s to the mid-1960s, African decolonization was largely considered a 'European concern' and the United States adopted a 'Europe first' policy that essentially identified Washington as being on the side of European colonial interests across the continent (Nwaubani 2001). Institutionally, this translated to the creation of a new position titled 'Deputy Assistant Secretary for African Affairs' within the State Department in 1956, following which a full-fledged Bureau of African Affairs was created in 1958.

Additionally, considerations relating to containing the spread of communism deeply influenced American policies towards Africa. In this regard, ODA emerged as a critical foreign policy tool. Between 1946 and 1948, the United States reportedly provided US$450,000 million in ODA, and an additional US$424,000 million in military assistance (Schraeder 1995). Furthermore, starting from the 1960s, the United States challenged Britain's position as the leading aid donor in former British colonies (Dietz and Houtkamp 1995). They also actively intervened militarily when the withdrawing colonial power was unable or unwilling to respond to crises or growing communist influence. For instance, the United States chose to actively get involved in the Zaire Crisis of 1960–65 with the Central Intelligence Agency delivering arms to Katanga's military and US/Belgian intelligence cooperating to overthrow the then-Congolese Prime Minister Patrice Lumumba, who was perceived as nationalistic and anti-Belgian (Gibbs 1995; Mountz 2014).

Since then, US foreign policy towards Africa evolved substantially as policy considerations meshed with domestic politics. During the cold war period, each administration sought to contain the spread of communism in the newly independent countries, but the approach varied. Democrats took a stronger anti-colonialism stance and were more aggressive in promoting US investments across Africa, even at the cost of straining relations with European counterparts. This was most notable during the terms of Roosevelt and Kennedy. The Republicans, on the other hand, were less inclined to favour US expansionism in what they considered 'remote' countries (Gibbs 1995).

Up to this point, I have examined the evolution of development assistance to Africa in the wake of decolonization, how various donors conceptualized aid assistance and set it up institutionally, and how their varied motivations for providing aid intersected with the broader geopolitics of the cold war and US involvement. These historical underpinnings point to a noteworthy insight: former colonizers (even if not formalized as in the case of the United States vis-à-vis Liberia) considered the former colonies their 'responsibility' long after independence. Foreign aid emerged as a major tool through which they engaged the former colonies. Thus, we can expect not only 'continuity' over time in the persistence of colonial legacies but also different types of continuities depending on the former colonial power. While academic scholarship has captured some of these dynamics, several questions remain unanswered, as I demonstrate below.

2.5 Scholarly debates

The landscape of development assistance has rapidly changed in the last few decades (Andrzejczak and Kliber 2015) to include new actors, modalities, and approaches to aid. Despite these transformations, certain patterns of donor assistance have endured. Perhaps the most noteworthy pattern has been the continued dominant role of former colonial powers in providing aid to their former colonies compared with countries without colonial ties. Alesina and Dollar (2000) in their study found that political factors such as colonial history and UN voting patterns explain how donors choose to distribute aid, instead of recipient country's political institutions or economic policies. Despite this general trend, interestingly, they briefly flag that major donors have their own distortions. For instance, France overwhelmingly provides aid to its former colonies, while a donor like Japan is more influenced by UN voting patterns. While they identify colonial history as being one of the main determinants of aid allocation from a list of factors, they do not delve into the nuances of regional trends, and whether the colonial histories matter more for some former colonizers than others. Similarly, Fuchs et al. (2014) run regressions for the time period 1976–2008 and reaffirm that colonial history has a robust and quantitatively relevant impact on aid allocation. Similarly, Andrzejczak and Kliber (2015) argue that French development assistance follows the same pattern and is largely driven by colonial history and oil/gas reserves in aid recipient countries. All these studies have a common pitfall: they treat colonial history as yet another covariate in a laundry list of potential factors that could influence foreign aid. In doing so, they all grossly oversimplify the historical complexity of colonization, and more importantly, strip the concept of

any nuance. Colonial legacy is relegated to yet another dummy variable, with no theoretical underpinnings or observations about why colonial legacies last for the duration that they do, which donors are affected by it, and what any of this means for aid recipient countries. This paper fills these gaps by investigating whether colonial legacies are increasing or declining over time (i.e. what is happening to their persistence), and whether these trends depend on who the former colonizer was.

One way to examine the persistence of colonial legacies is by looking at the notion of 'donor concentration', which is what I analyse in this paper. If foreign aid has become less concentrated, (i.e. more donors are providing aid to an aid recipient country today than historically), one could argue that the dominance of the former colonial power, at least with respect to foreign aid provision, has waned. White (2002) analyses concentration, from the perspective of the donor, between 1911 and 1996 through six measures: (i) number of countries receiving any aid at all from the donor, (ii) number of countries receiving over 1% of the donor's aid, (iii) number of countries receiving over 5% of the donor's aid, and the share of the donor's aid accounted for by the (iv) top one recipient, (v) top three recipients, and (vi) top ten recipients. They find that aid is not concentrated by one donor, and more diffused than before. However, the restrictive time-frame and lack of comparison in levels of concentration between donors makes it hard to ascertain any meaningful variation. On the other hand, a few studies have looked at between-donor variation and accounted for geopolitical dynamics like military interventions. However, they do not account for donor concentration. For instance, research by Kisangani and Pickering (2015) shows that French assistance declines over the course of a military intervention, but rises once the intervention ends. They find that British and US assistance follows the opposite pattern, whereby British and US giving increases during the intervention and then decreases when the troops depart. Foreign aid is unfortunately excluded from the scope of such studies. Thus, research that systematically analyses donor concentration across time and simultaneously looks across donor variation is rare in literature and presents a large gap.

Other studies within the theme of foreign aid have also analysed donor concentration, but either conceptualized it differently or used it to answer different research questions. Steinwand (2015) uses donor concentration, as quantified through the Herfindahl–Hirschman index (HHI), to measure 'lead donorship' and extent of donor fragmentation. Steinwand (2015) finds that lead donorship is in long-term decline and that uncoordinated/competitive behaviours among donors is on the rise. While the concept of lead donorship is innovative and tangentially applies to the question I pose around 'persistence' of legacies, the paper uses a technical lens to study coordination/competition in aid delivery, and largely glosses over historic processes or recipient characteristics in the analysis. Similarly, Oh and Kim (2015) use the HHI to study donor proliferation and its impact on the aid recipient country's growth. They find that donors tend to proliferate aid as their budget increases, and that this leads to recipient fragmentation, a phenomenon that has been observed historically. They also find a non-monotonic relationship between aid fragmentation and growth, which ultimately hurts the aid recipient country's growth. While providing valuable insights through advanced statistical methods, the paper fails to tackle the substantive issue of how colonial legacies link to donor proliferation and fragmentation. Lee (2022) also uses HHI to study donor concentration within specific sectors such as education and health to understand aid allocation dynamics within Uganda, but the framing and scope of analysis diverge from what this paper aims to achieve.

Therefore, while the concept of donor concentration has been used in the literature to examine broader questions related to foreign aid allocation, its application to the study of colonial legacies has been relatively scarce. Donor concentration not only serves as a quantifiable proxy for the 'persistence' of colonial legacies, but also facilitates the exploration of variations among former colonizers, an area that has received limited scholarly attention. Moreover, while most studies treat

donor concentration as an explanatory variable, my aim is to flip the question and delve deeper into what factors drive donor concentration. In this direction, I explain the specific hypotheses tested in the following section.

3 Hypotheses

H1: Persistence of colonial legacies (or donor concentration) declines over time.

Drawing from existing literature, two arguably irreconcilable patterns emerge regarding foreign aid distribution: (i) a tendency for donors to prioritize their former colonies in aid allocation, and (ii) a trend towards increased diversification in aid distribution, marked by the involvement of multiple donors. This hypothesis seeks to propose a relationship between these two broad patterns. I posit that as the pool of donors expands over time, aid becomes less concentrated or less centred solely around the former colonizer, contributing to a waning colonial legacy. While donors may still exhibit a preference for directing aid towards former colonies, the hypothesis argues that, over time, we should expect to see a diminished dominance of the former colonizer as the sole donor inside the aid recipient country. While this downward trend could be driven by a growing number of active donors participating in aid assistance to Africa, a few other concurrent explanations are possible. One could imagine that following decolonization, leaders in the newly independent countries can develop their foreign policies and relations with other countries, thereby broadening aid sources over time. It could also be possible that beyond the former colonial powers, other countries such as the United States, may start providing foreign aid to advance their own political, military, and economic objectives in the region. This could lead to a more diversified donor base. Lastly, perhaps the evolving needs of the aid recipient countries automatically necessitates a varied aid portfolio from a wider donor base over time. While I am unable to test which explanations causally determine the overall decline (owing to data limitations discussed later), this hypothesis tests the direction in which colonial legacies shift across time.

H2: Donor concentration in former French colonies is greater than in other aid recipient countries.

This hypothesis is a follow-up to H1 and argues that while there might be an overall decline in donor concentration over time, the starting points of concentration for all former-colonizers-turned-donors is not the same. In other words, some donors are likely to be more concentrated or entrenched with respect to foreign aid allocation in aid recipient countries relative to others. This is rather intuitive as each former colonial power had a distinct style of colonial rule, which presumably trickled down to the extent of control they wanted to maintain on foreign aid in the aftermath of independence. Specifically, I postulate that the variation in donor concentration would be significant when comparing Britain and France, owing to the latter's explicit Françafrique policy (set into motion by François Hollande) that sought to maintain the sphere of influence of the French metropole within its former African colonies. With foreign aid forming a strategic element of this policy, one could expect aid assistance in former French colonies to be more concentrated compared with a former colonizer like Britain, whose position was weaker in comparison and challenged by other actors such as the United States (Dietz and Houtkamp 1995).

H3: The rate of donor concentration in former French colonies declines faster than in others.

In building upon the two previous hypotheses, H3 posits that if donor concentration is showing an overall declining trend and some former colonizers are associated with greater concentration relative to others, then it is also very likely that the rate at which the former colonizers deconcentrate varies. Specifically, I argued that if aid in former French colonies is far more

concentrated than in former British colonies at a given point, what happens to the pace of deconcentration over time remains an empirical question. This hypothesis tests whether such a variation exists and to what extent. My initial priors suggest that aid in British colonies would deconcentrate relatively faster, given that actors such as the United States challenge its position. However, the inverse could also be equally plausible with France rapidly broadening its strategic interests outside of the African region and becoming less concerned with being the most prominent donor. Additionally, other variables could guide such a trend including aid recipient dynamics (e.g., recipient country institutions, political will, willingness to engage with new donors), donor characteristics (e.g., willingness to change, donor size), and factors external to both the donor and the recipient (e.g., military involvement of other actors, international commitments such as the Grand Bargain). While I do not statistically test which of these factors determines the pace of decline in concentration owing to data limitations, I contend with competing arguments that could explain the pattern.

4 Methodology

4.1 Case selection

As mentioned earlier, Africa provides a unique and compelling context for studying the persistence of colonial legacies in development assistance. The region experienced the involvement of multiple colonial powers, with France and Britain being particularly influential. Such a backdrop makes it an ideal case for analysing the nuanced trends in foreign aid. Notably, the study focuses on countries in Eastern, Western, Central and Southern Africa, and excludes North Africa. The rationale for this is that the delineation of 'Sub-Saharan Africa' is conventionally recognized in academic and policy discussions due to its distinct historical, cultural, and socio-economic differences. In restricting the scope, this research can more accurately assess the specific legacies of French and British colonization without the confounding influences present in North Africa. The sample of countries considered is provided in Appendix Table A1.

4.2 Measurement

The three hypotheses in Section 3 revolve around the central concept of 'donor concentration', which I use as a proxy to measure the persistence of colonial legacies. As explored in the literature Section 2, donor concentration has been used to study questions around lead donorship, donor fragmentation, and coordination, but rarely applied to the question of colonial legacies. Specifically, donor concentration serves as a suitable proxy for measuring persistence in this context because one of the most straightforward ways in which donors exert influence is through funding volume. If the aid volume received by a country in a given year is solely driven by one or a handful of donors, especially the former colonial power, it speaks to the donor's ability to exert control. However, if the total aid received by a country is provided by a range of donors, no single donor can exert complete control. In assuming that the former colonial power will typically be one of the largest (if not the largest) donor in any aid recipient country, I conceptualize an increase in donor concentration as an increase in the persistence of colonial legacy and a decrease in donor concentration as a fall in colonial legacy.

I measure donor concentration through HHI, a commonly used measure of market concentration that is simply calculated by squaring the market share of each donor in the donor 'market' and then summing the resulting numbers. The index approaches zero when a market is occupied by large donors of relatively equal size and a maximum of 10,000 when the market is controlled by a single large donor. The 'market' here is conflated to the 'total volume of aid received by an aid

recipient country'. I calculate each donor's market share within every aid recipient country by year, and then calculate the HHI for each country–year combination.

While I measure the persistence of colonial legacies in aid through the proxy of concentration, there exist alternate measures. For instance, one could look at the extent to which aid officials in the recipient country engage with policy-makers of the former colonizer country, where a greater engagement over time could translate to a lasting persistence in colonial legacy. However, such a measure could be biased as 'engagement' is extremely difficult to quantify. Additionally, the intentions and motivations guiding these engagements are usually opaque and political. Another option could be to look at military aid from the former colonizer to aid recipient country as a means to get at legacies in foreign aid allocation. While there is vast literature documenting the extensive relationship between military aid and weapons provided by a strategic external actor and foreign aid, especially in conflict settings, the directionality is fuzzy at best. Whether military aid meaningfully influences foreign aid decisions, or vice-versa, is hard to ascertain. Other measures of colonial legacies, such as trade relations or volume of investment by the former colonial power, did not appear to have straightforward links to aid allocation. Thus, after evaluating alternate measures and the potential biases they could introduce, donor concentration was selected as the proxy.

Thinking through the validity of donor concentration (measured through HHI), a few concerns persist. First, by creating concentration indices at the country–year level, the scope of the analysis is restricted to a broad, country-level design. This means that any sub-national variation cannot be captured by this measure. Also, the year level is considered owing to the annual cycle of publishing the aid data. Second, HHI calculates the concentration solely based on the volume of aid provided by each unique donor and does not account for any extended influence. For instance, if a donor (like the former colonizer country) provides direct bilateral aid to an aid recipient country, and then also lobbies in the World Bank/International Monetary Fund (IMF) to inform aid allocation decisions, the latter would not be captured. Finally, the scope of donor concentration is restricted to ODA flows and does not include loans and credits for military purposes. While these issues cannot be entirely resolved, donor concentration still serves as the closest and most systematic proxy for persistence in colonial legacies. The findings, however, need to be interpreted accordingly, keeping in mind these potential limitations.

4.3 Data source

To test the three hypotheses, I use the OECD DAC Credit Reporting System (CRS) data set as my main data source. The CRS provides official, standard, and comparable statistics of ODA aid flows at the project/activity level since 1973. It contains detailed quantitative and descriptive data on individual aid projects and programmes, including the sectoral and geographic breakdown, objectives of the aid project/programme, channel of implementation, donor and implementer type, disbursement amounts, and time period. CRS covers all ODA from DAC countries and also includes some non-member countries, and most multilateral organizations such as the United Nations, World Bank, IMF, etc. The data are collected through the annual DAC questionnaire submitted by donors that is based on a standard methodology with detailed reporting directives on ODA eligibility, classifications and collection methods. It is published over a year in arrears and relies on a single classification system agreed upon by the DAC donors.

For this research, the CRS was selected over seemingly comparable databases such as the International Aid Transparency Initiative (IATI) or the Financial Tracking Service (FTS) by the United Nations Office for the Coordination of Humanitarian Affairs for a few reasons.

First, IATI focuses on publishing information about development assistance in a timely fashion, and thus includes only a subset of flows for which immediate data are available (e.g., just from the main aid agency or only for country programmable aid). While this greatly benefits donors and aid actors to take timely and informed decisions, IATI does not produce comparable statistics over time like the CRS. Second, CRS captures all forms of ODA including development assistance, humanitarian aid, disaster response, and concessional finances, unlike data sets such as FTS that are purely focused on capturing humanitarian funding flows. Given the research focus on tracking foreign aid broadly by former colonial powers, the CRS serves as a better fit.

Despite these advantages, it is crucial to recognize the limitations of the CRS. The main limitation is that CRS does not comprehensively capture funding flows by non-DAC members (especially emerging donors such as China, India, Brazil), making it hard to accurately capture the actual scale of ODA received by countries. While IATI provides this data, I decided not to combine the two data sets, given the varying methodologies and donor reporting systems used to construct each of the data sets. Another limitation, as is the case with most large-scale aid data sets, is that the CRS only captures first-level aid flows. This means that any subcontracting, which is a widespread practice in funding and implementation of aid projects, cannot be captured. While the FTS marginally provides a solution to this issue by capturing aid 'flows' through 'parent flows' and 'child flows' (with the latter capturing part of subcontracting), the tracking of such data in consistent manner that avoids double-counting remains a major challenge. This issue is reflective of the broader aid data landscape, rather than the CRS in particular. Finally, specific to the CRS, there exists a concern with data quality before 1990. While the CRS officially commenced in 1973, between 1973 and 1990, donor records and data points are often incomplete. Since the database was fully digitized from archival records only in the early 2000s, the complex process of backdating and adding historical observations has led to relatively lesser completeness before 1990. Despite the quality concerns, historical data are also used to derive insights on persistence over time of colonial legacies.

In addition to the CRS, two other data sets are also used to extract the relevant covariates (which are outlined in Section 4.4). The first of these data sets is the Colonial Data (or COLDAT) data set. COLDAT is primarily based on the Correlates of War (CoW) database but also aggregates from other data sets to map the most recent/last European colonizer for every country, along with the start and end dates. For all countries in my sample across the African continent, I derive the former colonizer's identity from COLDAT, although some changes are introduced. These changes are summarized in the specification in Section 4.4.

For one other covariate, US military assistance, the data are derived from the US government's foreign assistance database. Since OECD CRS does not cover military assistance data, this had to be extracted from a different source. Military assistance is defined according to the *U.S. Overseas Loans and Grants (Greenbook)* report and includes International Military Education and Training, Military Assistance Program Grants, Foreign Military Credit Financing, and Transfers of Excess Defense Article (see USAID 2024). It excludes military assistance that is given for economic development purposes, assistance provided for counter-narcotics and counter-proliferation efforts, and commercial military sales (Sullivan et al. 2011). Finally, for one of the covariates (years since independence), the year of independence was manually coded based on the information provided on government websites of the relevant countries in the sample.

Concerns often arise when combining multiple data sets due to varying methodologies, but in this case, no major issues are envisaged. The OECD CRS data set forms the foundation of the analysis. Furthermore, additional variables derived from the COLDAT and US government database adhere to the same unit of observation, namely, the country–year combination, ensuring consistency across all data sources.

4.4 Specification

Using the concept of donor concentration and deriving relevant data from the data sets listed earlier, I ran several modified iterations of the following base regression specification to test the three hypotheses:

$$Y_{it} = \beta_0 + \beta_1 \text{Former\_colonizer}_{it} + \beta_2 \text{Years\_since\_independence}_{it} + \beta_3 \text{Market\_size}_{it} + \beta_4 \text{US\_military\_assistance}_{it} + \alpha_t + \epsilon_{it}$$

where

- Y_{it}: HHI for country *i* at time *t*, derived from OECD CRS. This is the dependent variable and is calculated by squaring the volume of aid (in dollar value) provided by each donor for a given aid recipient country–year, and then summing the result. The index has a range from 0 to 10,000. An increase in HHI indicates greater donor concentration, which in turn implies higher persistence of colonial legacies. A decrease in HHI indicates the opposite: a lower donor concentration and declining persistence of colonial legacies. In terms of interpreting this variable, a few caveats exist. (i) It is difficult to objectively ascertain whether a decline or increase is large enough. For instance, it is hard to assert whether a decline in HHI by 20 units is significantly different from say 30 units in tangible terms. (ii) any increase/decrease of this variable is measured in HHI units. How the HHI units compare against other potential measures is not explored.
- $Former\_colonizer_{it}$: Categorical variable that indicates the former colonizer for an aid recipient country *i* at time *t*, derived from COLDAT. However, for some countries (specifically Namibia, Eritrea, South Sudan, and Liberia), the COLDAT classification of the last former colonial power did not entirely apply owing to their complex history of independence. These cases were manually recoded as 'non- European colonizer' since the last colonizer was a regional power. Also, in the case of Liberia, the country was never considered a US colony in the technical sense. These recoding changes implied that Germany's role as a former colonizer in Africa was no longer considered in the analysis. Also, Spain and Italy only had one colony each in the entire sample (Equatorial Guinea and Ethiopia, respectively). Given its potential to induce bias as their effects would solely be driven by one aid recipient country, Spain and Italy were dropped from the list of former colonizers. This implies that Equatorial Guinea and Ethiopia were also dropped from the final sample. The final list of former colonizers considered include: Britain, France, Belgium, Portugal, and non-European colonizer. Since it is a categorical variable, it is always interpreted against a reference category.
- $Years\_since\_independence_{it}$: Calculates the number of years that the aid recipient country *i* has been independent at time *t*. The exact year of independence was derived from government websites of the countries within the sample. From this, the years since independence was simply calculated by subtracting the year of independence from the current year within the panel data set.
- $Market\_size_{it}$: Represents the total volume of aid (in dollar value) received by country *i* at time *t*, derived from OECD CRS. It is calculated by summing all the aid received by a given aid recipient country for that year. The identity of the donor is irrelevant for this variable as long as they contributed aid assistance. This covariate aims to measure whether or not the total aid provided to an aid recipient country influences the overall donor concentration.
- $US\_military\_assistance_{it}$: Represents the dollar value of military assistance provided by the United States to country *i* at time *t*, derived from the US government's foreign assistance database. I use the natural log of military assistance for the analysis, implying that the

interpretation of coefficients needs to be adapted accordingly. This covariate aims to serve as a proxy for broader geopolitical factors influencing donor concentration such as US involvement. It must be reiterated that this measure does not include arms sales and arms transfers by the United States.

- α_t: The year-specific fixed effect capturing time-specific unobserved factors. It must be flagged that year fixed effects can be highly collinear with the covariate $Years\_since\_independence_{it}$ since they test similar temporal dynamics. Thus, year fixed effects are only included when relevant transformations such as interaction effects are tested.
- α_i: The country-specific fixed effect. Similar to year fixed effects, country fixed effects may also be highly collinear with the covariate $Former\_colonizer_{it}$ and they are included only whenever applicable.
- ε_{it}: The error term.

Some other covariates that were initially considered but dropped from the final analysis include US economic assistance and recipient country characteristics such as gross domestic product (GDP). US economic assistance was excluded owing to its high correlation with the market size variable and the heightened high risk of double-counting. Recipient country characteristics such as GDP, while helpful to determine dynamics of aid allocation, did not offer theoretically relevant pathways to directly influence donor concentration. It could be argued that an aid recipient country with a higher GDP requires lesser aid every subsequent year and prompts donors to leave, thereby reducing concentration. However, the effect is lagged, and most importantly, not directly relevant to the research question of persistence of colonial legacies from the donor's standpoint.

In terms of the analysis itself, I choose fixed effects with country and year fixed effects as it helps control for two things: (i) that the aid recipient countries in this study sample have wide-ranging historical, political, economic, and institutional differences among themselves, which influence donor behaviour. Thus, it can be ensured that the estimated effects of former colonizers on donor concentration are not confounded by the unobserved heterogeneity, and (ii) year fixed effects help control for any time-specific factors that may affect donor concentration across all countries within a particular year. This could include macroeconomic conditions, changes/regulations introduced within aid policies, large-scale geopolitical events, and other factors not explicitly included in the model specification. Additional tests, presented in Section 5, were also conducted to ensure that fixed effects offered a better statistical fit relative to random effects models.

5 Results

The panel data set consists of 1,847 observations, with each row indicating an aid recipient country–year combination. The time period considered is between 1973 and 2021. The descriptive statistics summarizing the variables in the data set are provided in Tables 1–4.

Table 1: Data summary

Sample size	1,847
Number of variables	9
Column type frequency	
Character (*Aid_recipient_country*)	1
Factor (*Year*, *Last_colonized*, *Former_colonizer*, *Year_of_independence*, *Year_since_independence*)	5
Numeric (*HHI*, *Market_size*, *US_military_assistance*)	3

Note: HHI, Herfindahl–Hirschman index.

Source: author's computation based on the OECD CRS dataset.

Table 2: Variable type: character

Variable	*N*_missing	Complete_rate	Min	Max	Empty	*N*_unique	Whitespace
Aid_recipient_country	0	1	4	32	0	45	0

Source: author's computation based on the OECD CRS dataset.

Table 3: Variable type: factor

Variable	*N*_missing	Complete_rate	*N*_unique	Top counts
Year	0	1.00	48	
Last_colonized	48	0.97	19	
Former_colonizer	0	1.00	5	Britain: 780, France: 684, Portugal: 141, Belgium: 123
Year_of_independence	0	1.00	20	
Years_since_independence	0	1.00	146	

Source: author's computation based on the OECD CRS dataset.

Table 4: Variable type: numeric

Variable	*N*_missing	Complete_rate	Mean	SD	p0	p25	p50	p75	p100
HHI	0	1.0	4,192.36	3,406.84	606.00	1,338.5	2,647.00	6,950.50	10,000.00
Market_size	0	1.0	463.99	794.36	0.00	14.2	113.68	557.35	7,455.78
US_military_aid_log	732	732	13.32	1.85	7.33	12.0	12.94	14.32	19.56

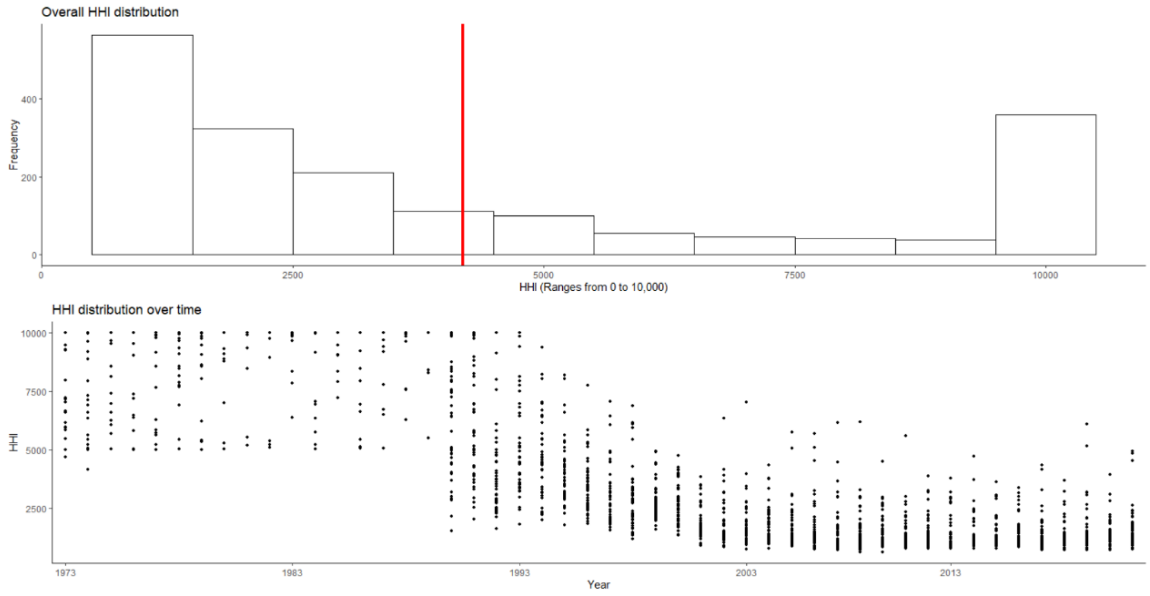
Source: author's computation based on the OECD CRS dataset.

In terms of data completeness, most of the covariates are mostly complete except for the *US_military_assistance* variable. Historical data, especially pre-1990 levels, are incomplete for some countries in the sample where data were either unavailable or not reported completely until early 2000s. Additionally, variables such as *Last_colonized* and *Year_of_independence* are not directly used in the analysis, but are retained in the data set. The HHI, which is the main dependent variable, is also summarized along with its mean, standard deviation, etc.

Analysing the distribution of the HHI serves as a crucial precursor to the regression results, offering insights into trends and skews within the data set. Here, I explore three main trends: first, the distribution of HHI across all time periods and countries (related to H1); second, the temporal disaggregation of HHI (related to H1), and finally, HHI disaggregated by each former-colonizer-turned-donor over time (related to H2 and H3).

The distributions in Figure 1 reveal several noteworthy patterns. The HHI curve exhibits somewhat of a U-shaped trend, indicating a higher frequency of country–year combinations at the extremes (i.e., very low and high HHIs) compared to the middle values. This pattern can be attributed to multiple factors. First, in the immediate aftermath of colonization, countries likely experienced high concentration with the former colonizer often being the primary donor. Over time, some countries may have gradually diversified their donor base, whereas others achieved this diversification more rapidly, leading to the observed spike in low HHI values. To further explore this decline, the distribution over time in Figure 1 is particularly informative. It demonstrates that the HHI is indeed declining over time across all aid recipient countries. However, it must be noted that observations having HHI of 10,000 between 1973 and 1983 does not automatically imply that the former colonial power was the sole foreign aid donor. Rather, it happens to be the only available data point within the OECD CRS for that country–year combination. For instance, Mali in 1973 has an HHI of 10,000 with France as the only donor. However, this could be because of France being the only donor that retrospectively reported this data point unlike other donors. Thus, pre-1990 distributions need to be interpreted cautiously. Despite this limitation, the more complete observations from 1990 onwards still show a clear downward trend in HHI.

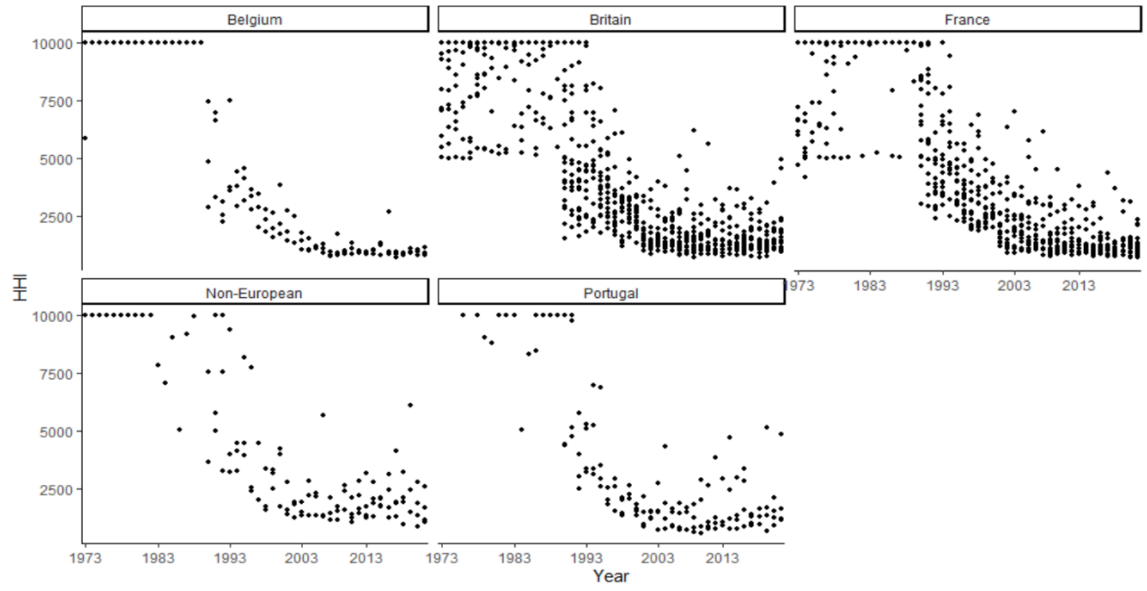
Figure 1: HHI distributions



Source: author's visualization based on the OECD CRS dataset.

I also check the HHI distributions disaggregated by former colonizers (see Figure 2). The trends appear much clearer now. Not only is there a decline in almost every aid recipient country over time, especially since the late 1990s, but the pace of decline also seems to vary depending on who the former colonizer was. Overall, the decline starts becoming evident circa 1990. To ensure that this decline holds despite the pre-1990 data limitation, I run country-specific trends and they lead to the same result. These distributions already begin to lend weight to H1 (that HHI is declining over time) and H3 (that there exists a difference in the pace of decline between former French and British colonies). I now present and discuss the regression results.

Figure 2: HHI disaggregated by former colonizer and time



Source: author's visualization based on the OECD CRS dataset.

To test H1 for whether persistence of colonial legacies has declined over time (which, according to descriptive analysis, seems overwhelmingly true), I undertake a univariate analysis (see Model 1)

by regressing the HHI on year with country fixed effects. The statistically significant coefficient indicates that, on average, the HHI decreases by 208 points for each additional year, controlling for differences between countries and holding other factors constant. I also verify this decline separately for pre- and post-1990 periods, which leads to the same conclusion.

I argue that this declining HHI is primarily linked to more donors and implementers getting involved in development programmes and humanitarian response within countries that were once the aid strongholds of former colonial powers. Historically, former colonizers were the sole (or one of the few) foreign aid donors following the independence of former colonies, but the aid landscape is rapidly evolving to include more donors. As Fengler and Kharas (2010: 22) note,

> In the past, a developing country government could convene the top ten donors and cover more than 90 percent of the aid flows. Today (published in 2010), the top ten donors typically cover less than 60 percent of total aid, and this proportion is likely to decline further as new aid players expand their activities.

To test H2 for whether former French colonies exhibit greater concentration at a given point in time, I regress the HHI on the *Former_colonizer* variable with year fixed effects (see Table 5, Model 2). I do not include country fixed effects here as it would account for changes/differences between countries, including the former colonizer status of the aid recipient country. This is already accounted for by the independent variable.

Table 5: Regression results with fixed effects

	Dependent variable: HHI		
	Model 1	Model 2	Model 3
Year	−208.259***		
	(3.071)		
Former_colonizer_Belgium		−80.917	−483.287***
		(127.708)	(154.167)
Former_colonizer_France		248.125***	200.791**
		(68.922)	(80.476)
Former_colonizer_Non-European		497.840***	369.601**
		(129.881)	(153.295)
Former_colonizer_Portugal		8.849	22.606
		(120.921)	(128.832)
Market_size			−0.079
			(0.050)
US_military_aid_log			−110.648***
			(23.090)
Years_since_independence			1.269
			(1.960)
Observations	1,847	1,847	1,115
R^2	0.719	0.015	0.061
Adjusted R^2	0.712	−0.013	0.028
F-statistic	4,599.291*** (df=1; 1,801)	6.660*** (df=4; 1,795)	9.915*** (df=7; 1,077)

Note: df, degrees of freedom. Standard errors in parentheses; *p<0.1; **p<0.05; ***p<0.01.

Source: results based on the author's analysis of the OECD CRS dataset

Model 2 reveals that compared with countries formerly colonized by Britain (the reference category), former French colonies are relatively more concentrated (associated with a statistically significant HHI increase of 248 units). This is arguably driven by greater embeddedness of France in its role as the former colonizer and the leading donor in these countries. As noted in Section 2,

Françafrique as a system has remained alive (Listre 2022) and continues to actively influence the political economy of former French colonies across the continent. In fact, studies have previously found that Anglophone and Francophone Africa show significant differences in economic growth (Ricart-Huguet 2022), with the Anglophone countries potentially growing faster due to an erosion of the persistence of colonial investments (Kohnert 2022). This all points to France playing a more influential role in its former colonies and retaining greater control over the foreign aid volume. Model 2 also reveals that countries colonized by regional powers (non-European) are also more concentrated compared with former British colonies, although the size of this effect is almost double relative to former French colonies (associated with an increase in HHI of 498 units). Former Belgian and Portuguese colonies are both statistically insignificant, although the negative sign for Belgium implies a relative drop in donor concentration relative to former British colonies. This already begins to provide proof of H2, and I validate in Model 3 whether the higher French concentration argument holds when other covariates such as years since independence, market size (or volume of) aid and US military assistance are included.

When these covariates are added to Model 3, the effect sizes change, but H2 holds true. Donor concentration in former French colonies is still higher and statistically significant compared with former British colonies. For non-European colonizers, there is a slight drop in both effect size and significance. However, the biggest change is observed for former Belgian colonies, which are statistically significant now, and shows a higher degree of deconcentration relative to former British colonies (through a drop in HHI of 483 units).

Within Model 3, market size or aid volume is statistically insignificant but has a small negative association with HHI. This inverse relationship could theoretically be driven by the aid allocation dynamics among donors. As Rowlands and Ketcheson (2002) note, aid allocation can be motivated by complementary (where donors coordinate their activities to achieve an overall distributional goal) or supplementary (where donors share the burden of foreign aid in an equitable manner) dynamics. In case of complementary dynamics where more donors provide foreign aid to achieve an overall goal, donor concentration may fall owing to greater number of aid actors. However, in case of supplementary dynamics where donors share the 'burden', aid volume may increase but the number of donors may remain the same or decline, owing to a reduction in concentration. Furthermore, the negligible effect size and lack of statistical significance implies that aid volume may not be a strong driver of donor concentration to begin with and that its effects could sway in either direction.

Interestingly, US military assistance also has a negative association, but a statistically significant and larger effect size. This means that every log unit in American military assistance reduces donor concentration in the aid recipient country by 110 HHI units. This association could be driven by a few different mechanisms. First, as it is widely acknowledged in the literature, foreign aid tends to follow soldiers and military aid into foreign countries (Kisangani and Pickering 2015). Owing to this knock-on effect, newer actors and donors may get involved in the aid response, leading to a reduced concentration. Second, American military assistance could simply be correlated with greater 'need' for aid, implying that some countries may require more assistance than others, which brings in more donors and naturally reduces concentration. However, regression specifications with country fixed effects, which controls for the varying levels of 'need' across countries, confirms that it is likely not the best explanation.

Model 4 tests H3 (Table 6), which posits varying rates of deconcentration across donors, by introducing interaction effects of the former colonizer variable with year and country fixed effects. Here, the interaction between former colonizer variable and years since independence is specifically of interest. I find that for every passing year following a country's independence from a former colonial power, the donor concentration or HHI falls by 123 units. This is in line with

the overall expectation that donor concentration should fall over time. To ensure that the downward trend is not simply driven by a few outlier cases, I run country-specific trends by multiplying countries dummies with the year and find the same pattern (see Appendix B). This reinforces the idea of a secular decline in donor concentration.

Table 6: Regression results with interaction effects

Dependent variable	HHI	Log_diff_HHI
	Model 4	Model 5
Years_since_independence	−122.612***	0.005*
	(8.409)	(0.003)
Market_size	0.344***	0.0001*
	(0.089)	(0.00003)
US_military_aid_log	−47.381	−0.009
	(47.393)	(0.016)
Years_since_independence: Former_colonizer_Belgium	−3.817	0.004
	(21.639)	(0.007)
Years_since_independence: Former_colonizer_France	−72.803***	−0.006
	(12.677)	(0.004)
Years_since_independence: Former_colonizer_Non-European	95.144***	−0.011
	(29.374)	(0.010)
Years_since_independence: Former_colonizer_Portugal	−34.122*	−0.018***
	(18.272)	(0.006)
Former_colonizer_Belgium: Market_size	−0.105	0.0001
	(0.224)	(0.0001)
Former_colonizer_France: Market_size	0.664***	0.0001***
	(0.212)	(0.0001)
Former_colonizer_Non-European: Market_size	0.558	0.0004**
	(0.541)	(0.0002)
Former_colonizer_Portugal: Market_size	0.322	0.0003***
	(0.315)	(0.0001)
Former_colonizer_Belgium: US_military_aid_log	−8.909	−0.044
	(112.236)	(0.037)
Former_colonizer_France: US_military_aid_log	149.720**	0.005
	(63.898)	(0.021)
Former_colonizer_Non-European: US_military_aid_log	144.271	−0.047
	(177.877)	(0.058)
Former_colonizer_Portugal: US_military_aid_log	668.263***	0.025
	(135.802)	(0.045)
Observations	1,115	1,115
R^2	0.522	0.057
Adjusted R^2	0.495	0.004
F-statistic (df=15; 1,055)	76.668***	4.222***

Note: standard errors in parentheses; *p<0.1; **p<0.05; ***p<0.01.

Source: results based on the author's analysis of the OECD CRS dataset.

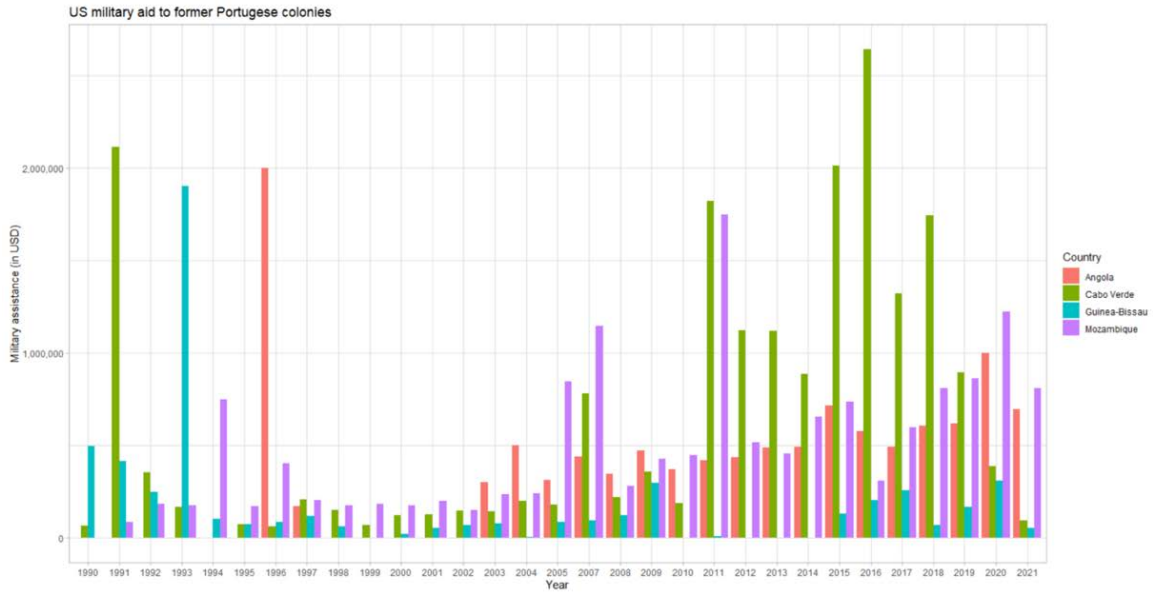
The rate of this decline varies depending on who the former colonial power was, as hypothesized in H3. As the interaction between former colonizer and years since independence shows, donor concentration in former French colonies falls by 73 units for every subsequent year following independence compared with former British colonies. For non-European/regional colonizers, the concentration increases by 95 units relative to former British colonies. These interaction effects are not statistically significant for former Belgian and Portuguese colonies. Combining this finding with those from the previous models, the following insights begin to emerge: (i) donor

concentration has generally reduced over time, (ii) former French colonies are generally more concentrated relative to former British colonies as shown in Models 1 and 2, and (iii) for every subsequent year following independence in former French colonies, donor concentration falls as shown in Model 3. But how can insights (ii) and (iii) be simultaneously true? This is where historical path-dependencies come into play. Britain's colonial method of 'indirect rule' that used existing political structures to project its power (Becker, 2020; Gerring et al. 2011) versus France's direct rule driven by centralization and close ties between the metropolitan and colonial governments (Lee and Schultz 2011) meant that the extent of embeddedness of each former colonial power within their colony greatly varied. This legacy of direct rule coupled with France's explicit aim to maintain strong control over former colonies through strategies like Françafrique can help explain the outcome observed in Model 3 where former French colonies have greater concentration relative to former British colonies, but still exhibit the overall general pattern of falling donor concentration over time as shown in Model 4.

Market size/aid volume has a negligible but statistically significant positive association with HHI. Interestingly, the coefficient changes from statistically insignificant −0.079 to statistically significant +0.34. This implies that as more aid, irrespective of which donor provides it, enters the country, donor concentration slightly increases. The interaction term with France is also statistically significant, meaning that for every additional US dollar in total aid that enters former French colonies, the concentration increases by 0.6 units relative to former British colonies. Aid volume does not seem to influence other former colonies, however. As noted earlier, this minor effect of aid volume on donor concentration could simply be a reflection of the supplementary dynamics of aid allocation.

US military assistance maintains a negative association with HHI in Model 4 as in Model 3, but the interaction effects for former Portuguese and to some extent French colonies emerge statistically significant with a positive sign. This means that relative to British colonies, former Portuguese and French colonies are associated with an increase in donor concentration for a log unit increase in US military assistance. Given the large effect size for former Portuguese colonies, I map the levels of US military assistance over time in the four relevant countries within the sample (Angola, Mozambique, Guinea-Bissau, and Cabo Verde) (see Figure 3).

Figure 3: US military assistance to former Portuguese colonies



Source: author's visualization based on the OECD CRS dataset.

As observed, Angola received a large sum in US military assistance in 1996 but the volume largely declined afterwards. Meanwhile, Cabo Verde has large spikes in funding in 1991, 2011, 2015, 2016, 2017, and 2018. Military assistance to Mozambique spikes in 2011 but remains relatively lesser otherwise, and Guinea-Bissau receives the smallest relative volume. It must be flagged that this descriptive graph is not entirely reflective of US military involvement in a given country context as weapons sales or soldiers deployed are not included in the definition of military assistance.

So what does this significant interaction between US military aid and former Portuguese colony status exactly mean? While the strategic and military undertones guiding historical US–Portugal relations with respect to African decolonization is established in literature (Rodrigues 2013; Stone 2000), I find that US military assistance in these countries drove up donor concentration. This could be driven by a few considerations. First, the presence of substantial US military aid might shift the priorities of the recipient countries towards military and security considerations at the expense of developmental issues. This shift can reduce the demand for development aid, consolidating it among a smaller group of donors willing to work within the existing security-focused framework. Second, increased military assistance from the United States could lead to other donors perceiving these countries as 'more stable', potentially reducing the urgency or perceived necessity of development aid from a broader range of sources. This, in turn, could increase donor concentration. Finally, on a more strategic level, US involvement could potentially lead to a more polarized donor landscape where development assistance becomes concentrated among a few key players who either support or strategically complement US initiatives.

As the final iteration (Model 5), I also transform the dependent variable to the difference of logs of the HHI (i.e., take the log of HHI at time t minus log of HHI at time $t-1$) to verify the change in donor concentration from one period to the next. The market size and years since independence interactions with Portugal emerge statistically significant, although this could be driven by the smaller sample of former Portuguese colonies. What is most relevant, however, are the interactions with France as the former colonizer. These are in largely the same direction as anticipated with the previous model iterations.

From a technical standpoint, I also check whether random effects model would be applicable instead of fixed effects by running Hausman tests. The small p-value resulting from this test leads to the rejection of the null hypothesis, affirming the appropriateness of using fixed effect models in the iterations above. To ensure robustness of the interaction model's estimates, I conducted diagnostic checks, including the Shapiro–Wilk test and Q–Q plot (see Appendix C). The results show that the residuals from this model exhibit a right or positive skew, deviating from the normality assumption. While this skew could potentially lead to over-prediction, it does not warrant significant concern given the large enough sample size. Furthermore, while it would be ideal to account for all factors influencing donor concentration in our analysis, it is neither practical nor possible to do so. Therefore, while acknowledging the presence of skew, it does not necessitate any further action.

6 Conclusion

This paper set out to answer two overarching questions relating to colonial legacies in foreign aid to Africa. (i) Are the colonial legacies increasing or declining over time? (ii) Does this increase/decline vary depending on who the former colonizer was? Overall, from the regression analysis, I find support for the decline in HHI over time and across countries (H1). I also find evidence of increased donor concentration in former French colonies relative to former British colonies (H2), and of faster decline in donor concentration in former French colonies (H3).

Crucially, the declining HHI does not imply that their overall influence of former colonizers has somehow reduced in African countries. Their influence is still greatly exerted through foreign aid, military aid, direct involvement in regional/national conflicts, diplomatic efforts, peace- keeping, and through corporate/economic interests (Charbonneau 2024; Glaister et al. 2020; Ogbonna et al. 2023). However, what I find is that the tendency to maintain a complete 'monopoly' over foreign aid by the former colonizer is reducing as more donors and implementers have entered the scene, and the pace of decline varies depending on the former colonizer.

These findings point to a number of follow-up questions that can be explored in future research. Perhaps the most obvious would be whether these trends hold true across other formerly colonized regions of the world, including Asia and Latin America. While one could expect great variation owing to the historical dynamics of colonization interacting with specific regional dynamics, the former colonizers also maintained a rather fixed toolbox of oppression tactics. Thus, one could expect that a similar former-colonizer-turned-donor rationale vis-à-vis foreign aid in newly independent countries across regions. However, this remains an empirical question. Another intriguing direction is whether these patterns persist if other proxies of 'colonial legacies' are used. In this paper, I used a simplistic proxy of donor concentration as determined by aid volumes. However, legacies are far more complex and subtle, and may manifest through influence over top-level decision-making on aid issues in recipient countries, by directly dictating the policy priorities through 'technical assistance', or by influencing multilateral aid allocation decisions. While these are a lot harder to tangibly measure, they are arguably crucial in guiding the current normative debates around overcoming power disparities and colonial legacies in development assistance. Creative ways to measure other manifestations of colonial legacies could truly advance this research.

These findings have significant implications for academic scholarship on neocolonialism, international hierarchies, and foreign aid. Specifically, the observed decline in donor concentration invites exploration into how colonial legacies continue to shape modern aid dynamics. The differentiation in donor concentration between former French and British colonies also prompts a deeper investigation into the specific historical, political, and economic factors that drive these variations.

For development policy and aid practitioners, understanding these dynamics is crucial for shifting power dynamics in foreign aid. By recognizing and addressing the subtle and complex ways colonial legacies manifest as this research suggests, practitioners can work towards inclusive and effective development strategies with the overall goal of reducing aid dependency on former colonizers.

References

AFD (Agence Française de Développment) (2024). AFD. Available at: https://www.afd.fr/en/afd-group#:~:text=AFD%20works%20to%20implement%20France's,and%20awareness%20raising%20in%20France (accessed July 2024).

Alesina, A., and D. Dollar (2000). 'Who Gives Foreign Aid to Whom and Why?'. *Journal of Economic Growth*, 5: 33–63. https://doi.org/10.1023/A:1009874203400

Andrzejczak, K., and A. Kliber (2015). 'The Model of French Development Assistance: Who Gets the Help?'. *Dynamic Econometric Models*, 15: 89–109. https://doi.org/10.12775/DEM.2015.005

Becker, B. (2020). 'Colonial Legacies in International Aid: Policy Priorities and Actor Constellations'. In C. Schmitt (ed.), *From Colonialism to International Aid: External Actors and Social Protection in the Global South*.

Global Dynamics of Social Policy. Cham: Springer International Publishing, pp. 161–85. https://doi.org/10.1007/978-3-030-38200-1_7

Breuning, M. (2016). 'Contesting Belgium's Role in Development Cooperation'. In C. Cantir and J. Kaarbo (eds), *Domestic Role Contestation, Foreign Policy, and International Relations*. London: Routledge, pp. 72–88.

Carson, H. (2022). 'French Bilateral Aid to Mali: Examining the Donor–Recipient Relationship Relationship's Effect on Development'. *Senior Projects*, Spring, 114. Available at: https://digitalcommons.bard.edu/senproj_s2022/114 (accessed July 2024).

Charbonneau, B. (2014). 'The Imperial Legacy of International Peacebuilding: The Case of Francophone Africa'. *Review of International Studies*, 40(3): 607–30. https://doi.org/10.1017/S0260210513000491

Chiba, D, and T. Heinrich (2019). 'Colonial Legacy and Foreign Aid: Decomposing the Colonial Bias'. *International Interactions*, 45(3): 474–99. https://doi.org/10.1080/03050629.2019.1593834

Clarke, G. (2018). 'UK Development Policy and Domestic Politics 1997–2016'. *Third World Quarterly*, 39(1): 18–34. https://doi.org/10.1080/01436597.2017.1369032

Cooper, F. (2011). 'Reconstructing Empire in British and French Africa'. *Past and Present*, 210(Suppl. 6): 196–210. https://doi.org/10.1093/pastj/gtq047

Cooper, F., H. Douglas, and L. White (2009). 'Alternatives to Empire: France and Africa After World War II'. In D. Howland and L. White (eds), *The State of Sovereignty: Territories, Laws, Populations*. Bloomington: Indiana University Press, pp. 94–123.

Cumming, G. (2017). *Aid to Africa: French and British Policies from the Cold War to the New Millennium*. Oxon/New York: Routledge.

Daems, H., and P. Van de Weyer (1993). 'The Foreign Influence in Belgium: The Consequences for Strategic Decision Power'. Koning Boudewijnstichting.

Dietz, T., and J. Houtkamp (1995). 'Foreign Aid to Africa: A Geographical Analysis'. *Tijdschrift Voor Economische En Sociale Geografie*, 86(3): 278–95. https://doi.org/10.1111/j.1467-9663.1995.tb00713.x

Dimier, V., and S. Stockwell (2023). 'Development, Inc.? The EEC, Britain, Post-Colonial Overseas Development Aid, and Business'. *Business History Review*, 97(3): 513–46. https://doi.org/10.1017/S0007680523000375

Dissanayake, R., and R. Calleja (2024). 'What Could the UK's Future Development Structure Look Like?'. Center for Global Development. Available at: https://www.cgdev.org/publication/what-could-uks-future-development-structure-look (accessed July 2024).

Easterly, W. (2006). *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done so Much Ill and so Little Good*. New York: Penguin Press.

Fengler, W., and H. Kharas (2010). 'Overview: Delivering Aid Differently'. In W. Fengler and H. Kharas (eds), *Delivering Aid Differently: Lessons from the Field*. Washington: The Brookings Institution, pp. 1–41. Available at: https://www.brookings.edu/wp-content/uploads/2016/07/deliveringaiddifferently_chapter.pdf (accessed July 2024).

Fuchs, A., A. Dreher, and P. Nunnenkamp (2014). 'Determinants of Donor Generosity: A Survey of the Aid Budget Literature'. *World Development*, 56: 172–99. https://doi.org/10.1016/j.worlddev.2013.09.004

Gerring, J., D. Ziblatt, J. Van Gorp, and J. Arévalo (2011). 'An Institutional Theory of Direct and Indirect Rule'. *World Politics*, 63(3): 377–433. https://doi.org/10.1017/S0043887111000104

Gibbs, D.N. (1995). 'Political Parties and International Relations: The United States and the Decolonization of Sub-Saharan Africa'. *The International History Review*, 17(2): 306–27. https://doi.org/10.1080/07075332.1995.9640710

Glaister, K.W., N. Driffield, and Y. Lin (2020). 'Foreign Direct Investment to Africa: Is There a Colonial Legacy?'. *Management International Review*, 60(3): 315–49. https://doi.org/10.1007/s11575-020-00415-w

Hofmeier, R. (1986). 'Aid from the Federal Republic of Germany to Africa'. *The Journal of Modern African Studies*, 24(4): 577–601. https://doi.org/10.1017/S0022278X00007217

Killick, T. (2005). 'Policy Autonomy and the History of British Aid to Africa'. *Development Policy Review*, 23(6): 665–81. https://doi.org/10.1111/j.1467-7679.2005.00307.x

Kisangani, E.F., and J. Pickering (2015). 'Soldiers and Development Aid: Military Intervention and Foreign Aid Flows'. *Journal of Peace Research*, 52(2): 215–27. https://doi.org/10.1177/0022343314561363

Kohnert, D. (2022). 'French Domination of Francophone African Markets: Post-Colonialism at Its Finest?'. MPRA Paper. https://doi.org/10.2139/ssrn.4037625

Krozewski, G. (2015). 'Global Britain and the Post-Colonial World: The British Approach to Aid Policies at the 1964 Juncture'. *Contemporary British History*, 29(2): 222–40. https://doi.org/10.1080/13619462.2014.964512

Lee, A., and K.A. Schultz (2011). 'Comparing British and French Colonial Legacies: A Discontinuity Analysis of Cameroon'. In APSA 2011 Annual Meeting Paper. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1903316 (accessed July 2024).

Lee, H. (2022). 'Aid Allocation Decisions of Bilateral Donors in Ugandan Context'. *Development Studies Research*, 9(1): 70–81. https://doi.org/10.1080/21665095.2022.2043174

Listre, J.-P. (2022). 'The Empire That Won't Die; a History of Françafrique, Éditions Du Seuil, 2021'. *Contemporary Africa*, 273(1): 159–77. https://doi.org/10.3917/afco1.273.0159

Medushevskiy, N.A, and A.R. Shishkina (2022). 'Modern French Policy on the African Continent: Transformations of a Françafrique Model'. *Journal of Asian and African Studies*, 57(6): 1141–57. https://doi.org/10.1177/00219096211046275

Mountz, W. (2014). 'The Congo Crisis: A Reexamination (1960–1965)'. *The Journal of the Middle East and Africa*, 5(2): 151–65. https://doi.org/10.1080/21520844.2014.930712

Moyo, D. (2009). *Dead Aid: Why Aid Is Not Working and How There Is a Better Way for Africa*. New York: Farrar, Straus and Giroux.

Nwaubani, E. (2001). 'Eisenhower, Nkrumah and the Congo Crisis'. *Journal of Contemporary History*, 36(4): 599–622. https://doi.org/10.1177/002200940103600403

Ogbonna, E.C., A.O. Ayoola, and O.A. Odeyemi (2023). 'The Colonial Origins of African Military and Its Implications for African Politics'. In S.O. Abidde and S. Komah-Abiwu (eds), *The Political Impact of African Military Leaders: Soldiers as Intellectuals, Nationalists, Pan-Africanists, and Statesmen*. Springer, 3–19. https://doi.org/10.1007/978-3-031-31427-8_1

Oh, J., and Y. Kim (2015). 'Proliferation and Fragmentation: Uphill Struggle of Aid Effectiveness'. *Journal of Development Effectiveness*, 7(2): 192–209.

One Campaign (2024). Official Development Assistance Data. Available at: https://data.one.org/topics/official-development-assistance/#:~:text=Aid%20to%20African%20countries%20totalled,%25%20to%20high%2Dincome%20countries (accessed July 2024).

Pacquement, F. (2010). 'How Development Assistance from France and the United Kingdom Has Evolved: Fifty Years on from Decolonisation'. *Revue Internationale de Politique de Développement*, 1(March): 51–75. https://doi.org/10.4000/poldev.137

Raimundo, A. (2014). 'Mapping the Agency of a Small, Former Colonial Power: Portugal and EU Political Conditionality in Sub-Saharan Africa'. *Perspectives on European Politics and Society*, 15(4): 589–605. https://doi.org/10.1080/15705854.2014.945274

Ricart-Huguet, J. (2022). 'The Origins of Colonial Investments in Former British and French Africa'. *British Journal of Political Science*, 52(2): 736–57. https://doi.org/10.1017/S0007123420000678

Rodrigues, L.N. (2013). 'The United States and Portuguese Decolonization/'. *Portuguese Studies*, 29(2): 164–85. https://doi.org/10.5699/portstudies.29.2.0164; https://doi.org/10.1353/port.2013.0000

Rowlands, D., and I. Ketcheson (2002). 'Multilateral Aid Coordination by the International Financial Institutions: An Examination of Canadian Development Assistance to Sub-Saharan Africa'. In B. Mak Arvin (eds), *New Perspectives on Foreign Aid and Economic Development*. Westgate: Praeger, pp. 27–55.

Schraeder, P.J. (1995). 'From Berlin 1884 to 1989: Foreign Assistance and French, American, and Japanese Competition in Francophone Africa'. *The Journal of Modern African Studies*, 33(4): 539–67. https://doi.org/10.1017/S0022278X00021431

Smith, S.W. (2013). 'France in Africa: A New Chapter?'. *Current History*, 112(754): 163–68. https://doi.org/10.1525/curh.2013.112.754.163

Steinwand, M.C. (2015). 'Compete or Coordinate? Aid Fragmentation and Lead Donorship'. *International Organization*, 69(2): 443–72. https://doi.org/10.1017/S0020818314000381

Stone, G. (2000). 'Britain and Portuguese Africa, 1961–65'. *The Journal of Imperial and Commonwealth History*, 28(3): 169–92. https://doi.org/10.1080/03086530008583104

Sullivan, P.L., B.F. Tessman, and X. Li (2011). 'US Military Aid and Recipient State Cooperation'. *Foreign Policy Analysis*, 7(3): 275–94. https://doi.org/10.1111/j.1743-8594.2011.00138.x

Thomas, M. (2014). *Fight or Flight: Britain, France, and Their Roads from Empire*. Oxford: Oxford University Press.

UCL Policy Lab (2024). 'The World in 2040: Renewing the UK's Approach to International Affairs'. UCL Policy Lab Report. Available at: https://www.ucl.ac.uk/policy-lab/news/2024/apr/world-2040-renewing-uks-approach-international-affairs (accessed July 2024).

USAID (US Agency for International Development) (2024). U.S. Overseas Loans and Grants: Obligations and Loan Authorizations, July 1, 1945–September 30, 2019. Washington, DC: USAID. Available at: https://www.foreignassistance.gov/reports (accessed July 2024).

White, H. (2002). 'Long-Run Trends and Recent Developments in Official Assistance from Donor Countries'. WIDER Discussion Paper 2002/106. Helsinki: UNU-WIDER. Available at: https://www.wider.unu.edu/sites/default/files/dp2002-106.pdf (accessed July 2024).

Wittkopf, E.R. (1977). [Review of] '*Aid Performance and Development Policies of Western Countries: Studies in US, UK, EEC, and Dutch Programs*. Edited by Bruce Dinwiddy (New York, Washington, and London: Praeger Publishers in Association with the Overseas Development Institute, 1973. pp. 148.$11.00.) *The Charity of Nations: The Political Economy of Foreign Aid*. By David Wall (New York: Books, Inc., 1973. pp. 192. $7.95)'. *American Political Science Review*, 71(2): 822–24. https://doi.org/10.1017/S0003055400269207

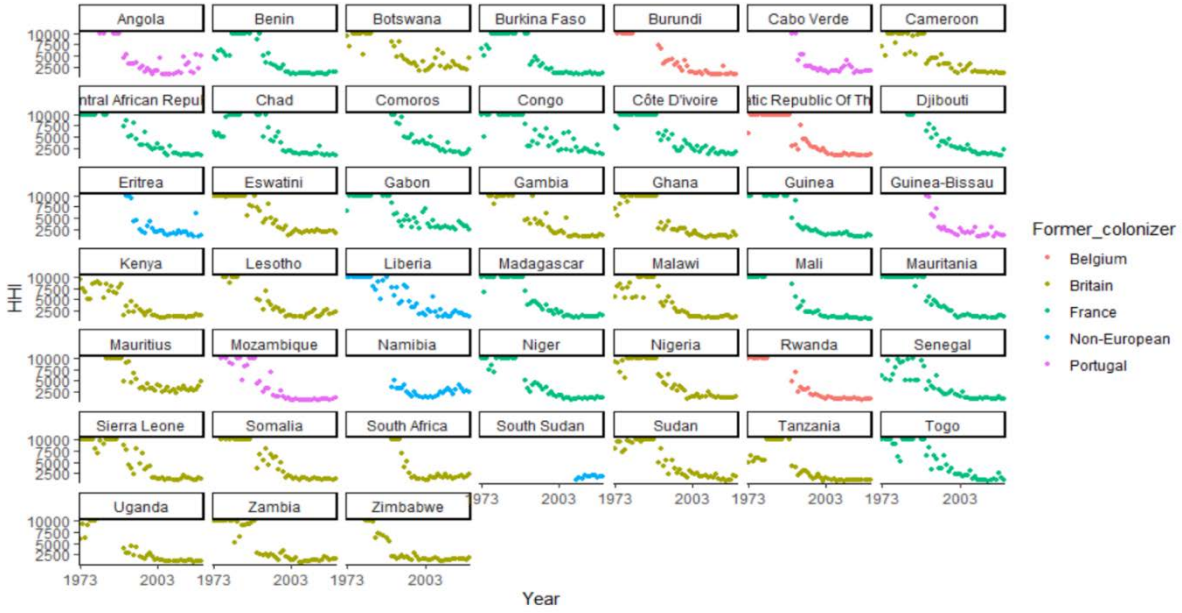
Appendix A

Table A1: Study sample list of aid recipient countries, year of independence, and the former colonizer

	Aid_recipient_country	*Year_of_independence*	*Former_colonizer*
1	Angola	1975	Portugal
37	Benin	1960	France
82	Botswana	1966	Britain
123	Burkina Faso	1960	France
168	Burundi	1962	Belgium
205	Cabo Verde	1975	Portugal
236	Cameroon	1960	Britain
284	Central African Republic	1960	France
324	Chad	1960	France
366	Comoros	1975	France
397	Congo	1960	France
442	Côte d'Ivoire	1960	France
490	Democratic Republic of the Congo	1960	Belgium
538	Djibouti	1977	France
603	Eritrea	1993	Non-European
633	Eswatini	1968	Britain
729	Gabon	1960	France
773	Gambia	1965	Britain
813	Ghana	1957	Britain
861	Guinea	1958	France
901	Guinea-Bissau	1974	Portugal
932	Kenya	1963	Britain
980	Lesotho	1966	Britain
1017	Liberia	1847	Non-European
1064	Madagascar	1960	France
1110	Malawi	1964	Britain
1157	Mali	1960	France
1195	Mauritania	1960	France
1243	Mauritius	1968	Britain
1281	Mozambique	1975	Portugal
1324	Namibia	1990	Non-European
1355	Niger	1960	France
1399	Nigeria	1960	Britain
1446	Rwanda	1962	Belgium
1484	Senegal	1960	France
1532	Sierra Leone	1961	Britain
1578	Somalia	1960	Britain
1619	South Africa	1910	Britain
1650	South Sudan	2011	Non-European
1661	Sudan	1956	Britain
1708	Tanzania	1961	Britain
1754	Togo	1960	France
1800	Uganda	1962	Britain
1838	Zambia	1964	Britain
1886	Zimbabwe	1980	Britain

Source: author's compilation based on the OECD CRS dataset.

Figure A1: Additional HHI distributions with HHI disaggregated by aid recipient country, former colonizer and time



Source: author's computation based on the OECD CRS dataset.

Appendix B

Table B1: Country-specific trends

	Dependent variable: HHI
Years_since_independence	−158.515***
	(25.715)
Years_since_independence: Aid_recipient_country_Benin	−19.652
	(31.367)
Years_since_independence: Aid_recipient_country_Botswana	−3.882
	(31.785)
Years_since_independence: Aid_recipient_country_Burkina Faso	−61.526**
	(31.356)
Years_since_independence: Aid_recipient_country_Burundi	−63.451*
	(33.373)
Years_since_independence: Aid_recipient_country_Burundi	−63.451*
	(33.373)
Years_since_independence: Aid_recipient_country_Cabo Verde	20.479
	(42.172)
Years_since_independence: Aid_recipient_country_Cameroon	−42.896
	(31.223)
Years_since_independence: Aid_recipient_country_Central African Republic	−75.182**
	(32.065)
Years_since_independence: Aid_recipient_country_Chad	−24.642
	(31.638)
Years_since_independence: Aid_recipient_country_Comoros	−77.703*
	(42.172)
Years_since_independence: Aid_recipient_country_Congo	−43.891
	(31.880)
Years_since_independence: Aid_recipient_country_Côte d'Ivoire	−66.633***
	(31.223)
Years_since_independence: Aid_recipient_country_Democratic Republic of the Congo	−85.543***
	(31.223)
Years_since_independence: Aid_recipient_country_Djibouti	−61.813
	(37.744)
Years_since_independence: Aid_recipient_country_Eritrea	−13.145
	(43.475)
Years_since_independence: Aid_recipient_country_Eswatini	−64.018**
	(31.223)
Years_since_independence: Aid_recipient_country_Gabon	−16.073
	(31.591)
Years_since_independence: Aid_recipient_country_Gambia	−77.045**
	(32.884)
Years_since_independence: Aid_recipient_country_Ghana	−67.456**
	(31.223)
Years_since_independence: Aid_recipient_country_Guinea	−75.080**
	(33.033)
Years_since_independence: Aid_recipient_country_Guinea-Bissau	−16.491
	(42.172)
Years_since_independence: Aid_recipient_country_Kenya	−14.451
	(31.223)
Years_since_independence: Aid_recipient_country_Lesotho	−35.695
	(34.024)
Years_since_independence: Aid_recipient_country_Liberia	−60.801*
	(31.255)

Years_since_independence: Aid_recipient_country_Madagascar	−78.936**
	(31.567)
Years_since_independence: Aid_recipient_country_Malawi	−29.993
	(31.255)
Years_since_independence: Aid_recipient_country_Mali	−65.121**
	(32.496)
Years_since_independence: Aid_recipient_country_Mauritania	−90.624***
	(31.223)
Years_since_independence: Aid_recipient_country_Mauritius	−32.283
	(35.780)
Years_since_independence: Aid_recipient_country_Mozambique	−81.774**
	(32.879)
Years_since_independence: Aid_recipient_country_Namibia	146.231***
	(42.172)
Years_since_independence: Aid_recipient_country_Niger	−65.498**
	(31.529)
Years_since_independence: Aid_recipient_country_Nigeria	−64.083**
	(31.311)
Years_since_independence: Aid_recipient_country_Rwanda	−61.422*
	(32.722)
Years_since_independence: Aid_recipient_country_Senegal	−20.531
	(31.223)
Years_since_independence: Aid_recipient_country_Sierra Leone	−77.926**
	(31.299)
Years_since_independence: Aid_recipient_country_Somalia	−96.008***
	(33.135)
Years_since_independence: Aid_recipient_country_South Africa	−47.531
	(42.172)
Years_since_independence: Aid_recipient_country_South Sudan	209.305
	(168.420)
Years_since_independence: Aid_recipient_country_Sudan	−60.934*
	(31.255)
Years_since_independence: Aid_recipient_country_Tanzania	−18.454
	(31.318)
Years_since_independence: Aid_recipient_country_Togo	−64.981**
	(31.340)
Years_since_independence: Aid_recipient_country Uganda	−18.476
	(32.496)
Years_since_independence: Aid_recipient_country_Zambia	−65.066**
	(31.223)
Years_since_independence: Aid_recipient_country_Zimbabwe	−18.698
	(34.024)
Observations	1,847
R^2	0.736
Adjusted R^2	0.722
F-statistic	108.661*** (df=45; 1,757)

Note: standard errors in parentheses; *p<0.1; **p<0.05; ***p<0.01.

Source: author's computation based on the OECD CRS dataset.

Appendix C

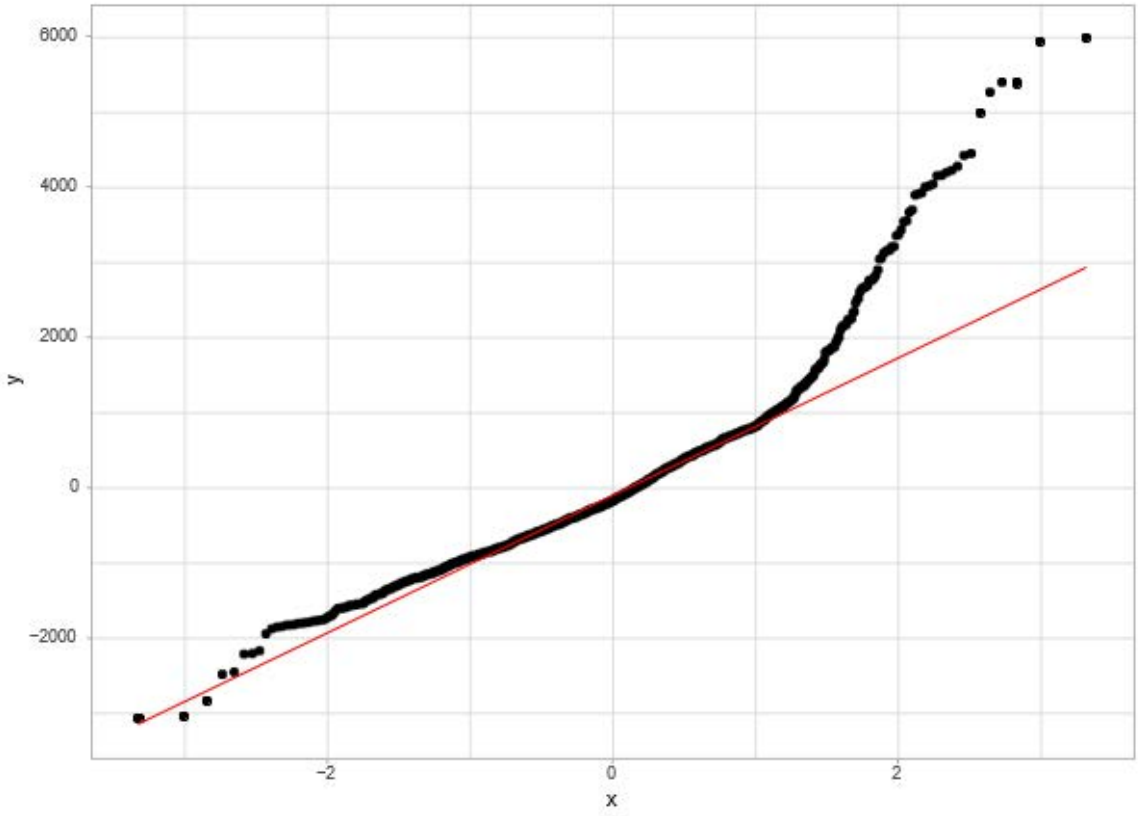
Shapiro–Wilk test (produced here for Model 4):

W=0.9031, p<2.2e-16

Given the small p-value, the null hypothesis that the data follow a normal distribution is rejected and the alternative hypothesis that the data do not follow a normal distribution is accepted.

The Q–Q plot provides further information on the nature and degree of skew in the data.

Figure C1: Q–Q plot of residuals



Source: author's computation based on regression results and models from the OECD CRS dataset.