

SPECIAL ISSUE ARTICLE **OPEN ACCESS**

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. 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, 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, although more concentrated at any given time, see this concentration decrease faster compared with former British African colonies. These trends are likely 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 the persistence of colonial legacies across Africa and help inform policy strategies for reforming aid practices by understanding the broader trends.

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 Policy Lab 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

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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?

Although 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 to 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 their 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, are declining over time. I also show that the rate of secular decline in colonial legacies (or concentration¹) 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. Although 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 the volume of US military assistance are found to significantly influence the 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 and stickiness. Through this research, I introduce new systematic evidence on the 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 the 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 a short 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 the 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. I explore how different former colonizers transitioned to their role of modern-day donors and 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, 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 (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. Subsequently, the idea of a 'French community' was embraced instead of assimilation, which sought to grant autonomy to the colonies (Cooper et al. 2009). The community effectively ceased to exist by the 1960s when most African countries declared independence and left the grouping.

Centralized institutions guiding overseas French foreign assistance also morphed over time. The *Ministère des colonies* (Ministry of Colonies) paved the 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) was 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). These eventually paved the way for the *Caisse centrale de la France d'outre-mer* (CCFOM; Central Finance Corporation for Overseas France), the *Fonds d'intervention pour le développement économique et social* (FIDES; Fund for Social and Economic Development) and ultimately the *Caisse française de développement* (CFD; French Development Fund), which was ultimately renamed the *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, 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 to 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 preexisting 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). Although 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 (Krozewski 2015). By the 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). Although the practice of tied aid continued well into the 1980s, it fell in the 1990s and was abolished altogether in 2001 (Killick 2005).

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 although 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. 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).

Although the overarching trajectories of French and British development assistance may seem comparable in that foreign aid evolved to prioritize the donor's strategic interests, 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.

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 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).

Although 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. Crucially, 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 and 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 1960–1965 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 anticolonialism 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 favor 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 motivations for providing aid intersected with the broader geopolitics. 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. Although academic scholarship has captured some of these dynamics, several questions in the literature 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 countries’ political institutions or economic policies. 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. Colonial legacy is relegated to yet another dummy variable, with no nuances in whether these legacies persist over time, in what form, and if it varies across different former colonizers.

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 and finds that aid is not concentrated by one donor and is more diffused than before. However, the restrictive time frame and lack of comparison in levels of concentration between donors make 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 the literature and presents a 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 the extent of donor fragmentation. Steinwand (2015) finds that lead donorship is in long-term decline and that uncoordinated/competitive behaviors among donors are on the rise. Although 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 nonmonotonic 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, although 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 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, although 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.

3 | Hypotheses

Hypothesis 1. *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. Although 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. Although 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. Although 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. In doing so, it focuses on the directional trend of legacies (as measured through donor concentration) over time, which reflects the diversification of donors beyond absolute aid volume changes.

Hypothesis 2. *Donor concentration in former French colonies is greater than in other aid recipient countries.*

This hypothesis is a follow-up to Hypothesis 1 and argues that although 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).

Hypothesis 3. *The rate of donor concentration in former French colonies declines faster than in others.*

In building upon the two previous hypotheses, Hypothesis 3 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 and willingness to engage with new donors), donor characteristics (e.g., willingness to change and donor size) and factors external to both the donor and the recipient (e.g., military involvement of other actors and international commitments such as the Grand Bargain). Although 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. Notably, the study focuses on countries in Eastern, Western, Central and Southern Africa. North Africa is excluded as the nature of colonization in the region was markedly different in terms of time periods and the forms of control. The full sample of countries considered is provided in Table A1 and the associated distributions under Figure 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 review, donor concentration has been used to study questions around lead donorship, donor fragmentation and coordination but has rarely been applied to the question of colonial legacies. In this context, donor concentration is defined as the extent to which a recipient country’s foreign aid is dominated by one or a few donors, particularly the former colonial power. I argue that when a country continues to receive the bulk of its aid from its former colonizer long after independence, it reflects a form of enduring influence that can be interpreted as a persisting colonial legacy. Conversely, a decline in donor concentration over time, especially when driven by a diversification of donors, may signal a loosening of this dependency. Although donor concentration may also result from other geopolitical factors, its specific relevance in this context lies in how it captures the dominance (or decline) of the former colonizer power in shaping aid flows.

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.

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 10000 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.

Although 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 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 the aid recipient country as a means to get at legacies in foreign aid allocation. Although 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 the 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 subnational 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. Although 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 nonmember countries and most multilateral organizations such as the United Nations, World Bank and IMF. 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.

It is also 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 and Brazil), making it hard to accurately capture the actual scale of ODA received by countries. Although IATI provides these 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 the funding and implementation of aid projects, cannot be captured. Although 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 a 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. Although the CRS officially commenced in 1973, between 1973 and 1990, donor records and data points are often incomplete. Because 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 the 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. For select countries (specifically Namibia, Eritrea, South Sudan and Liberia), the classification of the last former colonial power does not entirely apply owing to their complex history of independence. These cases were manually recoded as ‘non-European colonizer’ because the last colonizer was a regional power. Also, in the case of Liberia, the country was never considered a US *colony* in the strict 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 includes Britain, France, Belgium, Portugal and non-European colonizer.

One may also argue that considering only the last colonizer leads to oversimplification in cases where countries were colonized by multiple European empires across different points in time. As in line with prior literature, only the last colonizer is considered to ensure methodological consistency.

For one other covariate, US military assistance, the data are derived from the US government’s foreign assistance database. Because OECD CRS does not cover military assistance data, this had to be extracted from a different source. Military assistance is defined according to the *US 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 Defence 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:

$$Y_{it} = \beta_0 + \beta_1 \text{Former_colonizer}_{it} + \beta_2 \text{Years_since_independence}_{it} + \beta_3 \text{Total_aid}_{it} + \beta_4 \text{US_military_assistance}_{it} + \alpha_i + \epsilon_{it}$$

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, current prices) provided by each donor for a given aid recipient country–year and then summing the result. Only aid disbursements are considered, not aid commitments. The index has a range

from 0 to 10000. 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 largely from COLDAT. because 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.
- *Total_aid_{it}* represents the total volume of aid (in dollar value and current prices) received by country i at time t , derived from OECD CRS. It is calculated by summing the disbursed 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 (in current prices) 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}* because 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.

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 1847 observations, with each row indicating an aid recipient country–year combination. The time period considered is from 1973 to 2021. In terms of the identity of the former colonizer, 18 countries are coded as former British colonies (Botswana, Cameroon, Eswatini, Gambia, Ghana, Kenya, Lesotho, Malawi, Mauritius, Nigeria, Sierra Leone, Somalia, South Africa, Sudan, Tanzania, Uganda, Zambia and Zimbabwe), 3 as former Belgian colonies (Burundi, Democratic Republic of the Congo and Rwanda), 16 as former French colonies (Benin, Burkina Faso, Central African Republic, Chad, Comoros, Congo, Ivory Coast, Djibouti, Gabon, Guinea, Madagascar, Mali, Mauritania, Niger, Senegal and Togo), 4 as former Portuguese colonies (Angola, Cabo Verde, Guinea-Bissau and Mozambique) and 4 as former non-European colonies (Eritrea, Liberia, Namibia and South Sudan). Recall that *Former_colonizer* is a categorical variable such that each aid recipient country is coded as being colonized by exactly one of the following: Britain, Belgium, France, Portugal and Non-European and is interpreted in regressions in relation to a reference category. It is always interpreted in relation to a reference category.

The descriptive statistics summarizing the variables in the data set are provided in Table 1.

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.

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 Hypothesis 1); second, the temporal disaggregation of

TABLE 1 | Data summary.

Sample Size	1,847	
# of Variables	9	
Character Variables	1	Aid Recipient Country (45 unique countries)
Factor Variables	5	Year Last Colonized Former Colonizer Name - Categories: - Britain (780 observations) - France (684 observations) - Portugal (141 observations) - Belgium (123 observations) - Non-European (119 observations) Year of Independence Years Since Independence
Numeric Variables	3	Herfindahl–Hirschman Index Market Size US Military Assistance



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 (Logged)	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.

HHI (related to Hypothesis 1); and finally, HHI disaggregated by each former-colonizer-turned-donor over time (related to Hypotheses 2 and 3).

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 an HHI of 10000 between 1973 and 1983 do 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 10000 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.

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

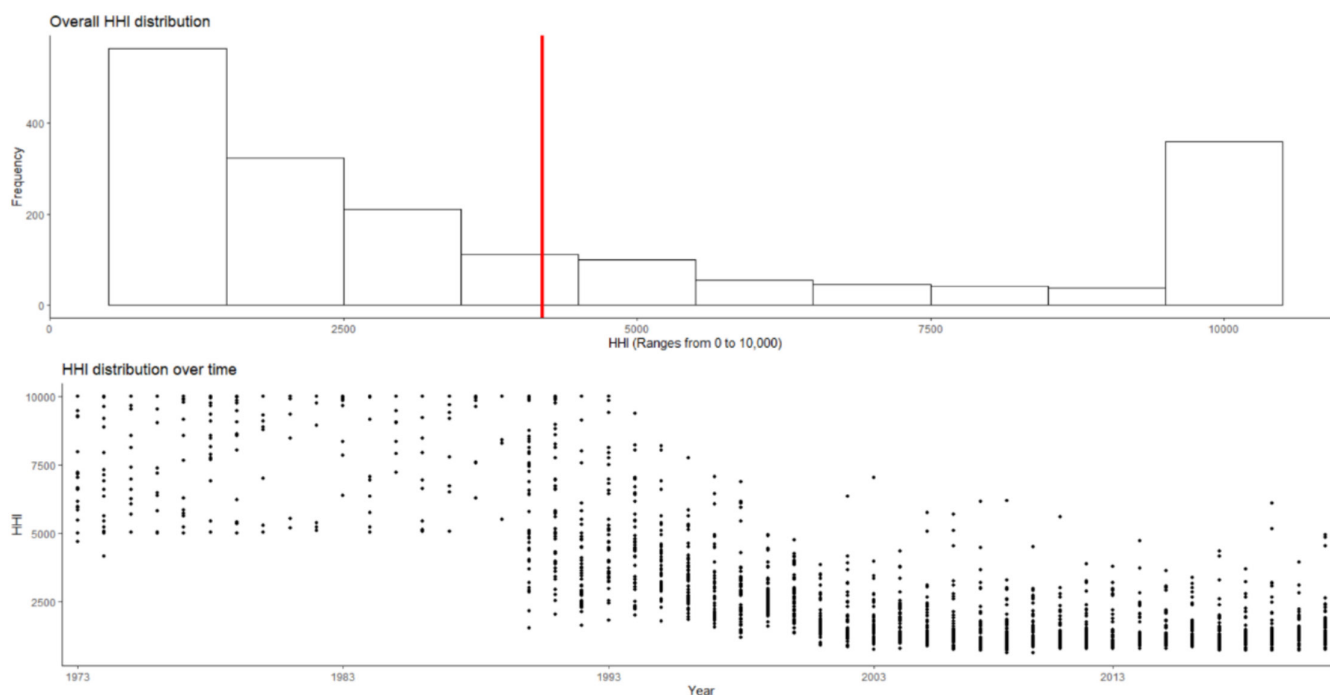


FIGURE 1 | HHI distributions. *Source:* Author's visualization based on the OECD CRS dataset.

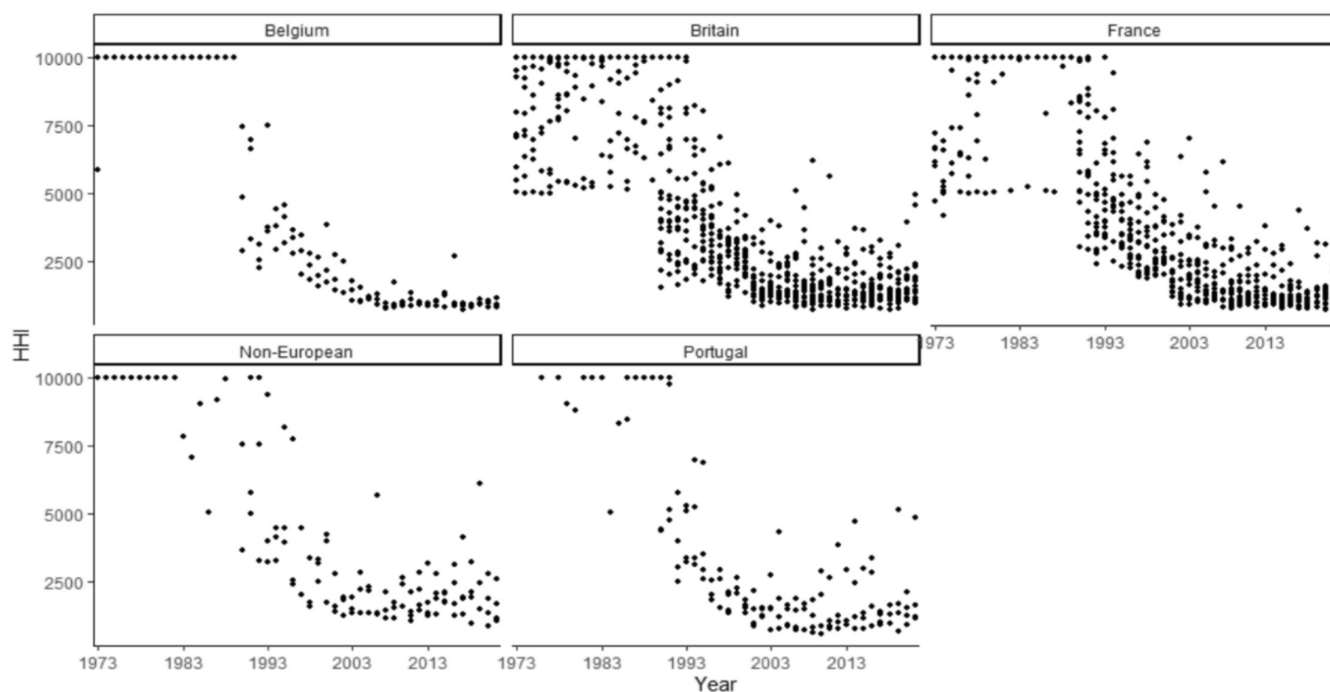


FIGURE 2 | HHI disaggregated by former colonizer and time. *Source:* Author's visualization based on the OECD CRS dataset.

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 Hypothesis 1 (that HHI is declining over time) and Hypothesis 3 (that there exists a difference in the pace of decline between former French and British colonies). I now present and discuss the regression results.

To test Hypothesis 1 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 could be 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.

I also verify this visually by inspecting whether more donors are associated with more/less concentration (see Figure 3). The simple scatterplot below shows that as the number of donors increases, the HHI decreases sharply. Furthermore, a correlation coefficient² of -0.7 between the number of donors for a given aid recipient country/year and HHI further affirms that more donors is linked to lesser concentration.

To test Hypothesis 2 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 2, Model 2). Britain is selected as the reference category for the former colonizer variable, as it has the greatest number of aid-recipient countries coded under it. Hence, it provides a statistically valid interpretation, with coefficients for other former colonizers interpreted in relation to it. I do not include country fixed effects in Model 2, 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.

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 evidence for Hypothesis 2, and I validate in Model 3 whether the higher French concentration argument holds when other covariates such as years since independence, total aid and US military assistance are included.

When these covariates are added to Model 3, the effect sizes change, but Hypothesis 2 holds true. Donor concentration in former French colonies is still higher and statistically significant compared with former British colonies. For non-European

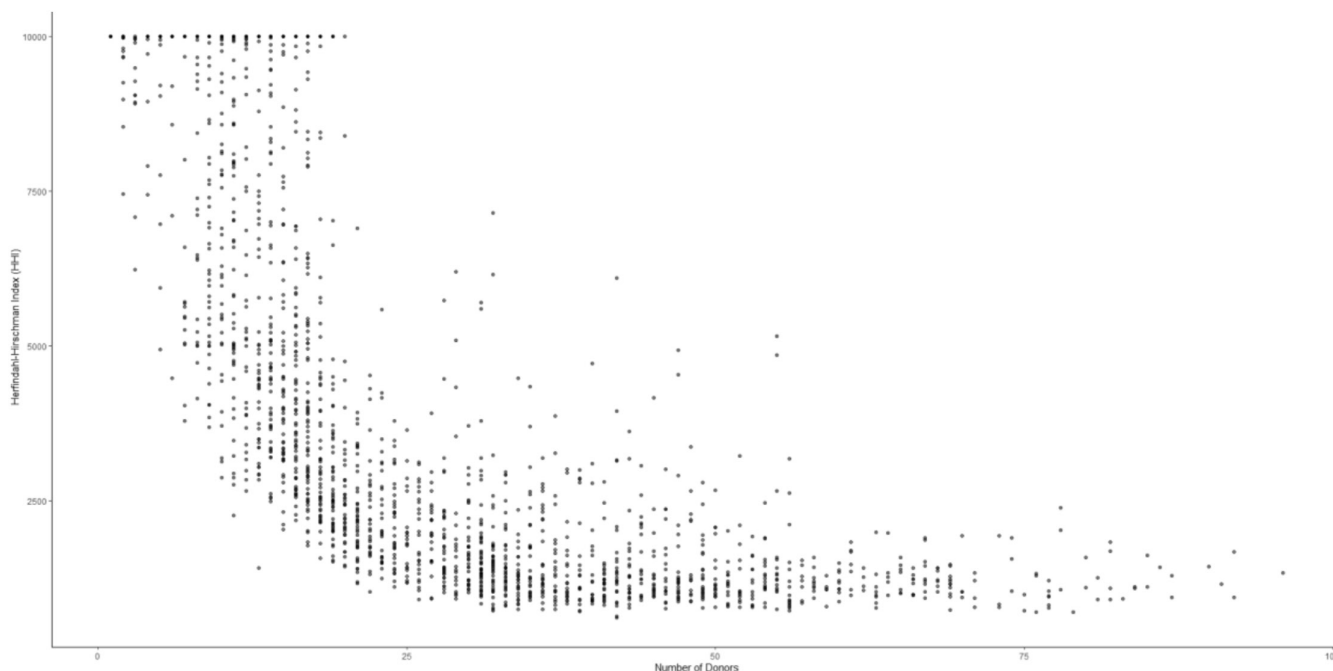


FIGURE 3 | Relationship between HHI and number of donors. *Source:* Author's visualization based on the OECD CRS dataset.

TABLE 2 | Regression results with fixed effects.

	Dependent variable: HHI		
	Model 1 (country FE)	Model 2 (year FE)	Model 3 (year FE)
<i>Year</i>	-208.259*** (3.071)		
<i>Former Colonizer Belgium</i>		-80.917 (127.708)	-483.287*** (154.167)
<i>Former- Colonizer France</i>		248.125*** (68.922)	200.791** (80.476)
<i>Former Colonizer Non-European</i>		497.840*** (129.881)	369.601** (153.295)
<i>Former Colonizer Portugal</i>		8.849 (120.921)	22.606 (128.832)
<i>Total Aid</i>			-0.079 (0.050)
<i>US Military Aid (logged)</i>			-110.648*** (23.090)
<i>Years Since Independence</i>			1.269 (1.960)
Observations	1847	1847	1115
R^2	0.719	0.015	0.061
Adjusted R^2	0.712	-0.013	0.028
<i>F</i> statistic	4599.291*** (df = 1; 1801)	6.660*** (df = 4; 1795)	9.915*** (df = 7; 1077)

Note: Standard errors in parentheses.

Abbreviation: df, degrees of freedom.

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

* $p < 0.1$.

** $p < 0.05$.

*** $p < 0.01$.

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, total aid 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 the case of complementary dynamics where more donors provide foreign aid to achieve an overall goal, donor concentration may fall owing to a greater number of aid actors. However, in the 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 imply 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 control for the varying levels of 'need' across countries, confirm that it is likely not the best explanation.

Model 4 tests Hypothesis 3 (Table 3), which posits varying rates of deconcentration across donors, by introducing interaction

TABLE 3 | Regression results with interaction effects.

	Model 4	Model 5
	Country, year FE	Country, year FE
<i>Years Since Independence</i>	−122.612*** (8.409)	0.005* (0.003)
<i>Total Aid</i>	0.344*** (0.089)	0.0001* (0.00003)
<i>US Military Aid (logged)</i>	−47.381 (47.393)	−0.009 (0.016)
<i>Years Since Independence * Former Colonizer Belgium</i>	−3.817 (21.639)	0.004 (0.007)
<i>Years Since Independence * Former Colonizer France</i>	−72.803*** (12.677)	−0.006 (0.004)
<i>Years Since Independence * Former Colonizer Non-European</i>	95.144*** (29.374)	−0.011 (0.010)
<i>Years Since Independence * Former Colonizer Portugal</i>	−34.122* (18.272)	−0.018*** (0.006)
<i>Former Colonizer Belgium * Total Aid</i>	−0.105 (0.224)	0.0001 (0.0001)
<i>Former Colonizer France * Total Aid</i>	0.664*** (0.212)	0.0001*** (0.0001)
<i>Former Colonizer Non-European * Total Aid</i>	0.558 (0.541)	0.0004** (0.0002)
<i>Former Colonizer Portugal * Total Aid</i>	0.322 (0.315)	0.0003*** (0.0001)
<i>Former Colonizer Belgium * US Military Aid (logged)</i>	−8.909 (112.236)	−0.044 (0.037)
<i>Former Colonizer France * US Military Aid (logged)</i>	149.720** (63.898)	0.005 (0.021)
<i>Former Colonizer Non-European * US Military Aid (logged)</i>	144.271 (177.877)	−0.047 (0.058)
<i>Former Colonizer Portugal * US Military Aid (logged)</i>	668.263*** (135.802)	0.025 (0.045)
Observations	1115	1115
R ²	0.522	0.057
Adjusted R ²	0.495	0.004
F statistic (df= 15; 1055)	76.668***	4.222***

Note: Standard errors in parentheses.

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

* $p < 0.1$.

** $p < 0.05$.

*** $p < 0.01$.

effects of the former colonizer variable with select covariates, along with year and country fixed effects. Here, the interaction between the former colonizer variable and years since independence is specifically of interest, as it shows whether the rate of decline varies depending on the former colonizer. 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 Table B1). This reinforces the idea of a secular decline in donor concentration. The model's distribution/skew is also explored (see Figure C1).

The rate of this decline varies depending on who the former colonial power was, as hypothesized in Hypothesis 3. 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.

Total aid 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.

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 total aid 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 largely in the same direction as anticipated with the previous model iterations.

From a technical standpoint, I also check whether the 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 the 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. Although this skew could potentially lead to overprediction, it does not warrant significant concern given the large enough sample size. Furthermore, although 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 (Hypothesis 1). I also find evidence of increased donor concentration in former French colonies relative to former British colonies (Hypothesis 2) and of faster decline in donor concentration in former French colonies (Hypothesis 3). Crucially, the declining HHI does not imply that the 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, peacekeeping and through corporate/economic interests (Charbonneau 2014; 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. Although 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. Although 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. Finally, the same empirics can be tested with the inclusion of Chinese aid to verify if the findings hold, especially in the recent time periods. On the methodological front, other flexible modelling approaches such as generalized least squares (GLS) can be experimented with to capture nonlinear effects.

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.

Acknowledgements

Open access publishing facilitated by Institut de Hautes Etudes Internationales et du Développement, as part of the Wiley - Institut de Hautes Etudes Internationales et du Développement agreement via the Consortium Of Swiss Academic Libraries.

Conflicts of Interest

The author declares no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available in OECD DAC-CRS (Credit Reporting System) at <https://data-explorer.oecd.org/>.

These data were derived from the following resources available in the public domain: OECD, <https://data-explorer.oecd.org/>.

Endnotes

¹In this paper, I use donor concentration as a proxy for the persistence of colonial legacies in foreign aid. Hence, the two are used interchangeably throughout the paper. Although the concepts are not synonymous in the literature, I conceptualize them as interlinked. Colonial legacies broadly refer to the lasting economic, institutional and political effects of colonial rule. Donor concentration, on the other hand, captures the degree to which a single donor (often the former colonial power), or a small group of donors dominates aid provision in a recipient country. Although donor concentration may also result from contemporary geopolitical or humanitarian interests, I argue that when concentration aligns with former colonial ties, it serves as a meaningful indicator of enduring legacies. This logic is further elaborated in the methodology section.

²The correlation between the number of donors and HHI was calculated using Pearson's correlation coefficient. Missing values were excluded by using complete observations only. The resulting coefficient of -0.70 indicates a strong inverse linear relationship between the two variables.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. **Data S1:** Supporting Information

Appendix A

TABLE A1 | Study sample list of aid recipient countries, year of independence and the former colonizer.

ID	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

(Continues)

TABLE A1 | (Continued)

ID	Aid Recipient Country	Year of Independence	Former Colonizer
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.

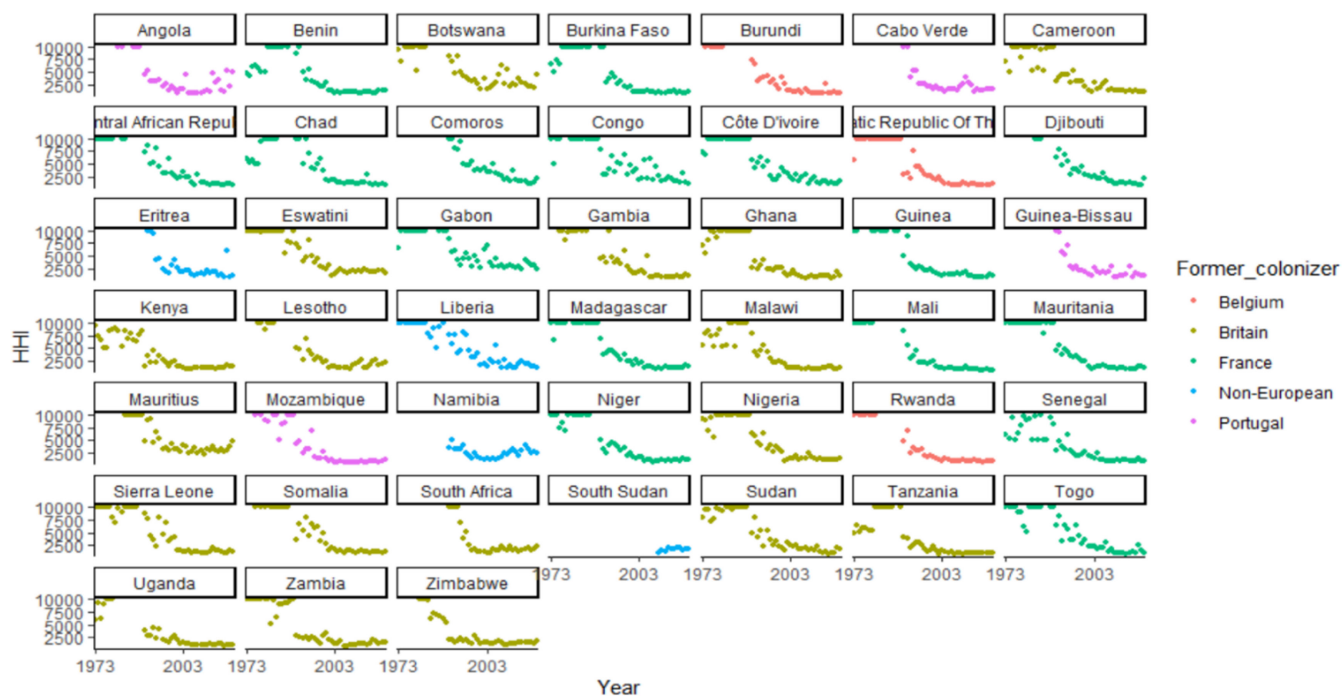


FIGURE A1 | Additional HHI distributions with HHI disaggregated by aid recipient country, former colonizer and time. *Source:* Author's computation based on the OECD CRS dataset.

Appendix B

TABLE B1 | Country-specific trends.

	Dependent variable: HHI
<i>Years_since_independence</i>	-158.515*** (25.715)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Benin</i>	-19.652 (31.367)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Botswana</i>	-3.882 (31.785)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Burkina Faso</i>	-61.526** (31.356)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Burundi</i>	-63.451* (33.373)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Burundi</i>	-63.451* (33.373)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Cabo Verde</i>	20.479 (42.172)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Cameroon</i>	-42.896 (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Central African Republic</i>	-75.182** (32.065)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Chad</i>	-24.642 (31.638)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Comoros</i>	-77.703* (42.172)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Congo</i>	-43.891 (31.880)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Côte d'Ivoire</i>	-66.633*** (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Democratic Republic of the Congo</i>	-85.543*** (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Djibouti</i>	-61.813 (37.744)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Eritrea</i>	-13.145 (43.475)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Eswatini</i>	-64.018** (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Gabon</i>	-16.073 (31.591)

(Continues)

TABLE B1 | (Continued)

	Dependent variable: HHI
<i>Years_since_independence:</i> <i>Aid_recipient_country_Gambia</i>	-77.045** (32.884)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Ghana</i>	-67.456** (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Guinea</i>	-75.080** (33.033)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Guinea-Bissau</i>	-16.491 (42.172)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Kenya</i>	-14.451 (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Lesotho</i>	-35.695 (34.024)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Liberia</i>	-60.801* (31.255)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Madagascar</i>	-78.936** (31.567)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Malawi</i>	-29.993 (31.255)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Mali</i>	-65.121** (32.496)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Mauritania</i>	-90.624*** (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Mauritius</i>	-32.283 (35.780)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Mozambique</i>	-81.774** (32.879)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Namibia</i>	146.231*** (42.172)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Niger</i>	-65.498** (31.529)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Nigeria</i>	-64.083** (31.311)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Rwanda</i>	-61.422* (32.722)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Senegal</i>	-20.531 (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Sierra Leone</i>	-77.926** (31.299)

(Continues)

TABLE B1 | (Continued)

Dependent variable: HHI	
<i>Years_since_independence:</i> <i>Aid_recipient_country_Somalia</i>	−96.008*** (33.135)
<i>Years_since_independence:</i> <i>Aid_recipient_country_South Africa</i>	−47.531 (42.172)
<i>Years_since_independence:</i> <i>Aid_recipient_country_South Sudan</i>	209.305 (168.420)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Sudan</i>	−60.934* (31.255)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Tanzania</i>	−18.454 (31.318)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Togo</i>	−64.981** (31.340)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Uganda</i>	−18.476 (32.496)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Zambia</i>	−65.066** (31.223)
<i>Years_since_independence:</i> <i>Aid_recipient_country_Zimbabwe</i>	−18.698 (34.024)
Observations	1847
R^2	0.736
Adjusted R^2	0.722
F statistic	108.661*** (df= 45; 1757)

Note: Standard errors in parentheses.

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

* $p < 0.1$.

** $p < 0.05$.

*** $p < 0.01$.

Appendix C

The results of the Shapiro–Wilk test (produced here for Model 4) are as follows: $W=0.9031$, $p < 2.2e-16$.

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.

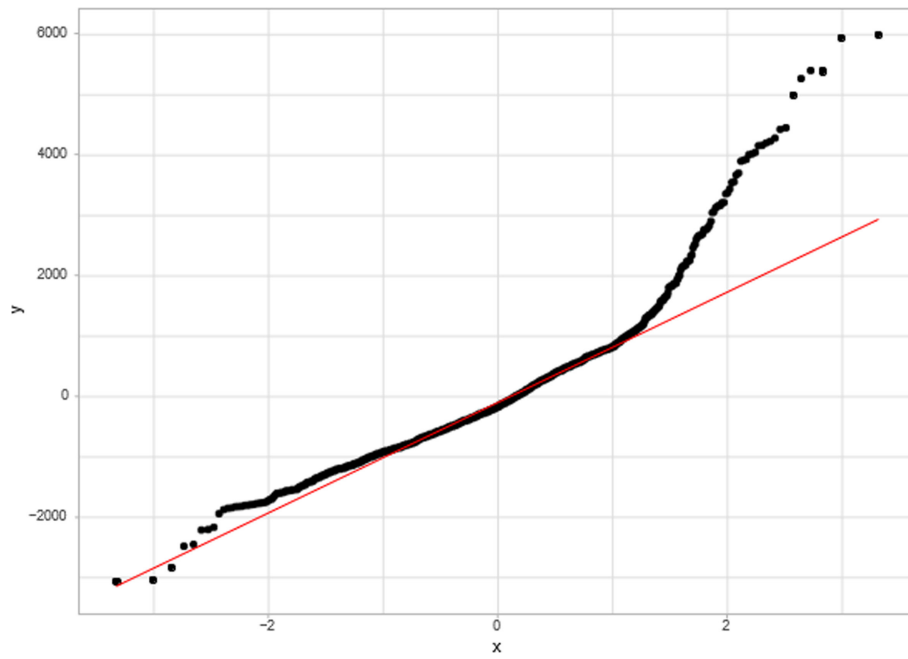


FIGURE C1 | Q–Q plot of residuals. *Source:* Author's computation based on regression results and models from the OECD CRS dataset.