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Aid effectiveness and donor motives

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ARTICLE INFO	A B S T R A C T
JEL classification: F35 Keywords: Aid Allocation Aid Effectiveness Fungibility Donor Motives	A vast literature evaluates the effectiveness of development aid, often reaching sobering conclusions. We argue that a key shortcoming of this literature is the focus on a narrow concept of effectiveness—mostly economic growth—that does not match the kind of effectiveness that aid donors actually aim at. To determine actual donor motives, we first survey the literature on aid <i>allocation</i> and identify a large set of motives that is common to many donors. We then employ this set of donor motives for compiling a survey of the aid <i>effectiveness</i> literature by donor motive. The literature shows that while aid has a moderate effect on economic development at best, it seems effective in achieving many of the other effects primarily intended by aid donors. We conclude by speculating that future research on aid effectiveness will be more likely to identify significant effects of aid when

taking donor motives into account.

1. Introduction

Foreign aid disbursed by the 32 members of the Organisation for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC) amounted to at least US\$200bn in 2022. In absolute numbers, aid has increased substantially over time. In constant 2021 prices, DAC members disbursed around 40bn in 1960. In concert with rising donor incomes, this figure continuously increased, to 66bn in 1980, 81bn in 2000, and 137bn in 2010.¹ In 2022, non-DAC donors that report to the DAC disbursed an additional US\$20bn; these numbers are complemented by aid from donors that do not report to the DAC, with China alone committing more than US\$50bn per year, on average, over the 2000–2017 period (Custer et al. 2017, Dreher, Fuchs et al., 2022). Given this large volume of aid—often not only concentrated in particular countries but also in sub-national regions within these countries—one might reasonably expect aid to have measurable effects.

Measuring effectiveness is however not straightforward. The

Cambridge Dictionary defines it as "the ability to be successful and produce the intended results."² Much of the literature on aid effectiveness evaluates effectiveness based on an assessment of whether or not aid increases economic growth or improves other development outcomes like health and education. But are improvements in such outcomes actually the *intended* effects of aid? While from a normative perspective there are good reasons for why these effects *should be* intended, from an empirical perspective it is not obvious whether they *are* intended by those who give the aid. In this article, we apply such an empirical perspective and assess the effectiveness of aid in producing the results that donors intend to achieve when giving aid.

In a first step, we review the empirical evidence on aid allocation to identify donor motives. As motives cannot directly be observed, we infer them by studying the correlation between aid flows and observable indicators that reflect such motives.³ We consider motives connected to recipient need, to recipient merit, as well as to donor interests. Need-motivated donors should give aid to recipient countries with lower

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¹ See https://webfs.oecd.org/oda/DataCollection/Resources/Longterm-ODA.xls, last accessed 31 October 2023. In terms of donor country's GNI, DAC donors however consistently fall short of the United Nations' goal to give 0.7% of their GNI as foreign aid, with values fluctuating between 0.21% in 2001 and 0.54% in 1961; the most recent (2022) value is 0.36%.

² https://dictionary.cambridge.org/dictionary/english/effectiveness, last accessed 5 July 2023.

³ This approach is admittedly imperfect as correlations can sometimes be interpreted in different ways. Donors may, for example, give more aid to poorer countries because they aim to fight poverty or because receiving political concessions from them is cheaper. Insignificant correlations between poverty and aid, in the presence of significant correlations between aid and voting behavior in international organizations, e.g., would however still be informative.

per-capita income and other human development outcomes (Dollar and Levin, 2006, Clist, 2011). Donors who take merit into account should reward recipients who embrace democracy, human rights, and good governance with more aid (Lebovic and Voeten, 2009, Reinsberg, 2015, Dietrich, 2021). For donors motivated by self-interest, aid allocation should reflect commercial or political objectives; their aid should depend on trade ties, geopolitical alignment, and domestic politics in both the recipient and the donor country (Alesina and Dollar, 2000, Kuziemko and Werker, 2006, Dreher et al., 2009, Faye and Niehaus, 2012, Kersting and Kilby, 2016, Dreher, Lang and Richert, 2019, Bommer et al., 2022). Self-interested donors are also more likely than others to adopt "targeted-development" approaches that seek to address negative spillovers from violent conflicts, migration, and global public bads like climate change (Dreher and Fuchs, 2011, Bermeo, 2017, Michaelowa and Namhata, 2022).

The second part of this review builds on the first. In addition to reviewing the literature testing whether aid affects growth, we investigate the extent to which aid is successful in achieving other key donor goals. In our reading of the literature, the evidence on aid and growth is mixed. Most of the papers that use credible identification strategies either find a positive but small effect of aid on growth, or find no robust effect at all. To the contrary, the literature shows that aid can be used to buy political concessions, which is one key reason that donors give aid. Aid for trade seems to increase trade, which is another important motive for donors to decide where to give aid. To some extent, aid can mitigate conflict and reduce migration flows, though the evidence is more mixed here. Overall there is thus evidence that aid is to some degree effective in achieving some of the goals for which it is primarily given. Whether and to what extent aid then promotes development at large depends on whether or not progress in the areas that are key to donors contribute to economic growth and human development.

In a third step we address the nascent literature that directly tests whether donor motives mediate the effectiveness of aid. To this end, we draw on recent aid effectiveness research that emphasizes differentiation by donor motive, sector, and subnational unit. This literature shows that motives matter for the effectiveness of aid. Where donors have specific motives, they often adjust their sector composition and delivery mechanism accordingly. Aid given to buy political concessions can then be ineffective in promoting development. Across all donor motives, the literature shows a substantial difference between the effectiveness of total aid and aid targeted to specific motives.

Our review is necessarily selective, as full coverage of the vast aid literature would be infeasible. Our choice of articles for review is guided by four key criteria. First, we focus on studies that examine how donors allocate aid, rather than how aid *should be* allocated from a normative perspective. Taking a positivist focus on aid allocation is necessary because we cannot otherwise infer the *intended* effects of aid flows. Second, we only consider studies that assess donor motives by analyzing revealed preferences based on examining aid allocations. Our review focuses on studies that infer motivations from correlations between aid allocations and proxy variables for different motivations.⁴ Third, we choose studies from the aid effectiveness literature focusing on whether they employ credible methods of causal inference. Only where the body of evidence on effectiveness is thin, we rely on more correlational

studies. Fourth, given that we focus on how donor motives mediate the effectiveness of aid, we omit many papers that separate reviews on aid allocation or aid effectiveness alone would like to cover. As such, our work complements previous reviews on aid effectiveness and allocation (McGillivray et al., 2006, Werker, 2012, Grover, 2023), in particular those that focus on certain aspects of aid, such as fragile recipients (Dreher, Lang and Ziaja, 2018, Hoeffler and Justino, 2023), sectoral outcomes such as education (Riddell and Ninõ-Zarazúa, 2016), individual donors like China (Dreher and Parks, 2023) or donors' aid budgets (Fuchs et al., 2014). We would also like to refer readers to composite volumes (Milner and Tingley, 2013, Desai et al., 2023), the papers in which provide substantially more details on aid allocation and effectiveness than we can cover here.

2. Donor motives for aid allocation

A vast body of literature has examined the motivations for why donors provide foreign aid. Given data availability, earlier work has focused on a single donor—the United States—and compared the importance of donor-interest motives relative to recipient needs (e.g., McKinlay and Little, 1977). With the availability of better data, the literature started to compare the allocation of various donors, first at the level of countries (Alesina and Dollar, 2000, Dreher et al., 2011, Hoeffler and Sterck, 2022), and more recently for sub-national entities within these countries (Bomprezzi et al., 2023).

This literature has also evolved in terms of the donor motives it considers. Going beyond recipient need and donor interest, many recent studies include recipient merit-whereby donors reward improvements in democratic governance, human rights, or gender equality (Hoeffler and Outram, 2011, Reinsberg, 2015). Donor interests are further separated into more specific goals. The literature started to distinguish commercial from political interests (e.g., Alesina and Dollar, 2000) and further differentiated between political interests related to international and domestic politics (e.g., Faye and Niehaus, 2012). More recently, scholars began considering "targeted-development" approaches of selfinterested donors that aim to avoid negative spillovers to their countries from instability and migration flows (e.g., Bermeo, 2017). For our review, these are the literature's differentiations between donor motives that we consider to be most important, acknowledging that our choice is to some extent subjective. Hence, Section 2.1 focuses on various dimensions of recipient need, Section 2.2 on merit, with a particular emphasis on the quality of institutions, and Section 2.3 investigates the importance of donor interests related to commercial gains, international politics, domestic politics, peace, and migration.

While the literature on aid allocation has come a long way in terms of investigating heterogeneity in several dimensions, the method of choice in testing such effects has hardly changed over the last 50 years or so. Most of the evidence we discuss below is based on conditional correlations from linear regressions that include a small number of explanatory variables, and often but not always net out fixed effects for years and countries. Only few studies apply credible methods for causal inference. In line with most of the papers in this literature, we thus avoid making strong claims regarding causality.

2.1. Recipient need

2.1.1. Economic development

When testing the importance of different motives for the allocation of aid almost all studies include either the recipients' per-capita income or growth. Significant correlations between these measures of economic development and aid are then mostly interpreted as evidence that donors allocate aid in line with need, for example because they are motivated by moral obligations to help the poor (Olsen, 1998). Such interpretation however ignores that donors might find it easier to exert influence over poorer countries than richer ones, and granting more aid per capita might be in the donor's rather than the recipient's interest

⁴ Alternative approaches for identifying donor motives include drawing on party manifestos and official speeches in international fora (Dietrich et al., 2020, Finke, 2022) or on assessing markers through which donors flag contributions to fit specific development priorities, including gender equality, climate change, or fragile states (Michaelowa and Michaelowa, 2011). These approaches are impracticable for our purpose due to limited time-series data, or invalid due to incentives for over-coding on desirable priorities like climate aid (Michaelowa and Michaelowa, 2011). Indeed, these approaches will only reveal some motives but not hidden (geopolitical) motives (Bueno de Mesquita and Smith, 2010, Dreher, Lang, Rosendorff, & Vreeland, 2022).

(Boone, 1996). What is more, donors might want to reduce negative spillover effects associated with low incomes in developing countries (Bermeo, 2017). For instance, to the extent that low levels of economic development imply larger migration flows to donor countries donors also have an interest in promoting incomes for less altruistic reasons (Lanati and Thiele, 2018; Dreher, Fuchs and Langlotz, 2019). For those reasons, the interpretation of economic development as an indicator for need alone might be misleading.

Either way, to the extent that the promotion of income growth in developing countries is a key donor motive, more aid should go to countries with a low GDP per capita and with high poverty rates. Not only could such an aid allocation target people in need but also could the same absolute amount of aid promote more economic growth there. And indeed, most studies find that average income levels are negatively associated with aid flows (Bermeo, 2017, Dreher, Fuchs et al., 2022, Hoeffler and Sterck, 2022).⁵

That being said, the observed allocation of aid hardly seems optimal from the perspective of a donor whose primary goal is economic development in recipient countries. The share of aid going to the poorest countries is small.⁶ An allocation based on poverty headcounts would nearly double the number of people who could be lifted out of poverty, according to a study by Collier and Dollar (2002).

These average figures, however, conceal heterogeneity along two dimensions. First, during the Cold War, poverty alleviation did not seem to be a primary donor motive (Bermeo, 2017). Over the past decades, an increasing share of aid has however been going to poor recipient countries (Claessens et al., 2009). Second, not all donors place a similar emphasis on a needs-based allocation. Multilateral donors have a greater "poverty focus" than bilateral donors (Neumayer 2003b, McGillivray et al., 2008). And while poverty sensitivity overall has increased, differences between bilateral donors remain as well. A recent study that compares the allocation decisions of several donors in Africa during 2000-12 finds that China, Germany, Japan, the United Kingdom, and the United States allocate more aid to poorer countries (Hoeffler and Sterck, 2022).⁷

A related literature evaluates the poverty sensitivity of aid at the subnational level. These studies show that donors target richer places within recipient countries (Briggs, 2017, 2018, 2021, Öhler et al., 2019, Dreher, Fuchs et al., 2019). For example, Nunnenkamp et al. (2017) assess the district-level targeting of World Bank project aid in India, finding weak evidence of needs-based allocation choices. Using 1,400

geocoded projects in 17 African countries approved by the African Development Bank and the World Bank, Briggs (2017) shows that aid does not favor those administrative units in which most poor people live. In fact, a 1% increase in the share of people of the richest wealth quintile in a given region is related to 0.7% more aid to that region. Briggs (2018) replicates this finding using a grid-cell analysis and various proxies of poverty. For example, a 1% increase in nightlight intensity is related to 1.09% more aid projects. To understand this apparent lack of poverty focus in the allocation of two multilateral donors, Briggs (2021) conducts a survey experiment with World Bank task team leaders to test various explanations for pro-rich targeting. While team leaders believe that aid works better in poorer or more remote areas, they tend to avoid these areas because they consider project implementation more difficult there.⁸

In sum, the allocation of aid across countries suggests that donors take economic need of recipients into account, but it plays a minor role. If economic need were the dominant donor motive, much more aid would go to poorer countries and to poorer regions within these countries.

2.1.2. Human development

While economic growth is seen as a key catalyst for human development, aid donors may also directly target human development outcomes.9 Research has examined whether donors allocate aid in accordance with human development needs regarding access to education, health, water and sanitation, and social services. Younas (2008) finds that the 22 DAC donors in his sample appear to be concerned about reducing infant mortality. Specifically, a 1% increase in infant mortality is related to a 0.35% increase in aid. Considering multilateral donors, the literature shows that UN agencies' aid takes human development into account-in contrast to aid allocated by regional development banks (Neumayer 2003b). Thiele et al. (2007) investigate large bilateral and multilateral donors separately and test whether these donors have prioritized their aid in line with the Millennium Development Goals (MDGs). Controlling for overall levels of development, they find that donors to some extent differ in how their sectoral allocation of aid is influenced by the MDGs. Japan and the United States have performed particularly poorly in terms of targeting aid to needy recipients. While some MDGs-the fight against HIV/AIDS in particular-have shaped the allocation of aid, MDGs such as primary education did not.

Subnational aid allocation research concludes that aid reaches places within recipient countries with *better* health outcomes—mirroring the allocation results obtained for poverty-related motives discussed above. Proxies of health outcomes included child malnutrition and infant mortality, measured for 52 African countries (Briggs, 2018).¹⁰ Yang et al. (2018) find that health-related indicators were not generally correlated with Chinese health aid, with the exception of facility delivery rates and under-five mortality, which they find to be associated with the allocation of hospitals. According to the results of Dreher, Fuchs et al. (2022), who study a global sample of 110 recipient countries in 2002–16, Chinese development finance is more responsive to human development than aid from the United States, the World Bank, and the group of DAC donors combined.

In sum, the evidence suggests that donors tend to allocate more aid to countries with greater human development needs. However, their projects prefer subnational localities that are better off, suggesting that aid is ultimately unlikely to reach the most vulnerable.

⁵ Table 1 in Appendix A reports effect magnitudes. Given that the number of studies and results we include in this review is too large to list them all in a table, we select those that we (admittedly to some extent subjectively) think best reflect the range of estimated effects. As can be seen in the table, effect magnitudes are relatively small, ranging from 0.035% more aid/GNI for a 1% decrease in GNP per capita (Boone, 1996), to about 0.55% more aid for a 1% decrease in GDP per capita (Bermeo, 2017).

⁶ See https://www.oecd.org/dac/financing-sustainable-development/O DA-2022-summary.pdf, last accessed 31 October 2023. Over the 1960–2013 period, only 1.69–5.25 percent were given to the poorest 20 percent of countries in any given year (Qian, 2015).

⁷ A key driver behind these differences seems to be domestic politics. For example, left-wing governments give more aid for poverty alleviation and inequality reduction (Brech and Potrafke, 2014). An important question is whether these governments provide more aid for poverty alleviation in absolute terms rather than re-purposing aid toward poverty alleviation within a given aid budget. Empirical analyses confirm that, as governments become more conservative, they reduce aid to low-income countries and multilateral organizations (but not to middle-income countries) (Tingley, 2010). Contrary to these findings, Fuchs et al. (2014) do not find a significant relationship between government ideology and aid provision—for both multilateral and bilateral aid. In Germany, left-wing governments committed even less aid than right-wing governments (Dreher et al., 2015). These results indicate that the effect of domestic politics on aid allocation patterns is not uniform, even across OECD/ DAC donor countries.

⁸ See Briggs (2023) for a survey.

⁹ The turn towards human development in the aid allocation literature addresses long-held criticisms in the literature on poverty measurement at large (Cornia et al., 1987).

 $^{^{10}}$ A 1% increase in child mortality is related to 2.9% less aid to that region (see Table 1 in Appendix A).

2.2. Recipient merit

Donors may reward merit and respond to the quality of institutions in recipient countries.¹¹ After the end of the Cold War, donors also started to publicly emphasize the role of sound policies and good governance as a precondition for effective aid. While multilateral donors spearheaded this movement, bilateral donors were quick to follow, at least rhetorically. Research corroborates that over time—particularly after the Cold War—donors have given more aid to recipients with better policies and institutions (Berthélemy & Tichit, 2004; Claessens, Cassimon, & Van Campenhout, 2009; Dollar & Levin, 2006).¹² This incentivizes recipients to create an image of statehood so as to attract more aid, without necessarily building well-functioning states (Pritchett et al. 2013).

As to respect for human rights, the literature is less conclusive. An early study found US bilateral aid to respond positively to human rights records (Cingranelli and Pasquarello, 1985)-but others could not replicate these results with modified samples and human rights measures (McCormick and Mitchell, 1988). Nearly two decades later, a new wave of studies revisited the issue in a global sample using donorrecipient dyads. Neumayer (2003a) finds that most donors consider respect for civil-political rights at the aid eligibility stage, but not personal integrity rights. Once recipients pass the eligibility stage, however, most donors fail to promote respect for human rights in a consistent manner and often give more aid to countries with a poor record on either types of rights. Carey (2007) examines this issue for the European Commission, Germany, France, and the United Kingdom. The results suggest that donors do not consistently respond to the human rights situation in developing countries, with the exception of Germany. Most donors tend to carry forward aid commitments from the previous year, which undermines their ability to respond systematically to changing human rights practices. Hoeffler and Outram (2011) find that donors differ in their responses to human rights practices. Their results suggest that among the major donors, France, Germany, and Japan appear to reward human rights improvements, while US aid is negatively related to improvements. With regard to eligibility for US aid, however, Clist (2011) finds a positive correlation with human rights improvements.

More recent work probes that punishment of human rights violations is selective and examines the conditions under which donors respond to human rights practices. For example, Lebovic and Voeten (2009) show that 'shaming' in the United Nations Commission on Human Rights reduces aid to shamed countries by the World Bank, but not by bilateral donors. In terms of effect magnitude, shaming reduces World Bank aid by 0.28% on average. Other research confirms that donors impose aid sanctions selectively. Nielsen (2013) finds that donors punish repressive states to which they do not have close political ties, when violations have negative consequences for donors, and when violations are widely publicized. This finding is in line with Allendoerfer (2017), who provides evidence from survey experiments suggesting that US voters support cutting aid to countries that violate human rights. Support for aid to these countries diminishes by a sizeable 30 percentage points.

Another marker of institutional quality is control of corruption. Alesina and Weder (2002) find no evidence that less corrupt governments receive more foreign aid but rather that more corruption increases aid receipts for some measures of corruption. There is also heterogeneity across donors: while Scandinavian donors seem to reward control of corruption in terms of total aid allocation, others—among them the United States—do not (Alesina and Dollar, 2000). Consistent with these results, Schudel (2008) finds that less corrupt donors are more sensitive to recipient-country corruption. In line with these findings, Støver Toft and de Soysa (2020) find that Norwegian aid is negatively related to corruption levels, unlike aid from all other donors combined.

An alternative interpretation of the aid-corruption findings is that donors deliberately channel aid to fragile states, which often have poor records of corruption control (Carment et al., 2008). The rationale for supporting these countries is that disengaging from them can undermine their development and pose threats to donors (Feeny and McGillivray, 2009). Several contributions have tested this notion (Bermeo, 2017, Winters and Martinez, 2015, Katoka and Kwon, 2021). Specifically, in countries with a low level of governance quality, donors bypass the government, channeling increasing shares of their aid budget through non-governmental organizations (Dietrich, 2013). In substantive terms, a decrease in governance quality by a standard deviation increases the bypassing probability by up to 20 percentage points. These effects are even more pronounced where donors face fewer bureaucratic constraints to outsourcing aid delivery, which holds for Anglo-Saxon donors and, more recently, the Scandinavian ones (Dietrich, 2021). Furthermore, selective donors use types of aid over which they have more control when providing assistance to poorly governed countries (Winters and Martinez, 2015). For example, technical assistance provides donors with more control than program aid, as does social sector aid compared to infrastructure aid. Similarly, donors provide a higher share of aid as general budget support to better-governed recipients (Bermeo, 2017).

The question of governance selectivity has elicited more interest following the rise of non-DAC donors. In particular, China purports not to care about regime type, good governance, and human rights in its aid allocation. Research examining this issue indeed finds no relationship between governance variables and foreign aid in Africa (Hoeffler and Sterck, 2022). In line with these findings, Dreher, Fuchs et al. (2022) find that China is agnostic about institutional quality, in a broad sample covering all world regions. In contrast, DAC donors give more aid to more democratic countries, whereas the World Bank provides more assistance to less corrupt countries.

In summary, donors reward better institutional quality with more aid, in particular after the end of the Cold War, while evidence regarding human rights and corruption is more mixed as well as donor- and context-specific. Aid types and aid channels chosen by donors also depend on the quality of institutions and governance in recipient countries.

2.3. Donor interests

2.3.1. Commercial interests

Aid may serve the commercial interests of donor countries. Some observers consider aid as an (implicit) contract between donor and recipient, in which donors commit resources which they expect recipients to use to buy donor exports. Recipient governments accept this arrangement because they can direct resources to their own priorities (Nowak-Lehmann et al. 2009, Pettersson and Johansson, 2013).

The empirical evidence from the aid allocation literature suggests that all donors provide more aid to trading partners. Alesina and Dollar (2000) find that trade openness predicts larger aid flows. Probing this relationship further, Hoeffler and Outram (2011) find a significant

¹¹ Political institutions refer to the collective arrangements that enable and constrain the behavior of policymakers and align behavioral expectations among stakeholders. They include regime type, specifically whether a country is democratic, but also whether governments respect human rights, or whether they take action against fraud and corruption. Economic institutions include the rule of law, property rights, and more generally the capacity of the state, reflected in its ability to tax and provide public goods (Besley and Persson, 2011, Djankov et al., 2020).

¹² The different measures of merit used in the literature include the Country Policy and Institutional Assessment index (Claessens et al., 2009), the International Country Risk Guide (ICRG) rule of law index (Dollar and Levin, 2006), the political terror scale (Clist, 2011), or indicators of democracy and democratization (Berthélemy and Tichit 2004, Reinsberg, 2015).

correlation between (lagged) trade openness and aid for all donors.¹³ In both studies, 1% more trade openness is related to about 0.45% more aid.¹⁴ According to more recent research, the United Kingdom, the United States, Japan, and Germany allocate their aid in Africa in line with their own commercial interests, while China does not (Hoeffler and Sterck, 2022). According to the (worldwide) results of Dreher, Fuchs et al. (2022), China, the United States and the group of DAC donors combined all give more aid to countries with which they have deeper trading ties.

Researchers have also considered different types of trade flows. Younas (2008) shows that countries allocate more aid to recipients that import goods in which donor countries have a comparative advantage in production. A spatial regression analysis for 23 DAC donors by Barthel et al. (2014) provides evidence for export competition among the five largest donors, driving aid allocation towards economic infrastructure and production sectors. With competition for economic leadership in green technology rising, the issue of whether donors use climate aid to support domestic green exporters has become salient. In this context, Bayramoglu et al. (2023) analyze climate aid transfers to uncover a significantly positive effect of donor exports on climate aid. Relatedly, Weiler et al. (2018) find that donors give more climate change adaptation aid to countries to which they export more.¹⁵

Going beyond bilateral aid, researchers have scrutinized how donors influence the aid allocation of multilateral development organizations for their commercial gain (Malik and Stone, 2017, Dreher, Lang and Richert, 2019). Specifically, Dreher, Lang and Richert (2019) establish that donor governments influence the International Finance Corporation (IFC)—the private-sector lending agency of the World Bank Group such that it channels financing to private companies in their countries. Related research by Malik and Stone (2017) finds that World Bank projects show inflated evaluations and higher disbursement rates that are not justified by project performance, when multinational corporations based in the United States and Japan are involved as project contractors. They interpret this as evidence for private-actor influence on the World Bank through national policy networks of the leading shareholders.

Literature at the subnational level confirms that trade interests matter for aid allocation. Using data on World Bank projects in India approved in 2006–11, Nunnenkamp, Öhler, & Sosa Andrés, 2017 find that World Bank aid targets districts where foreign direct investors may benefit from projects related to infrastructure. Substantively, for every additional FDI project, World Bank aid is predicted to be 0.15% higher.

In summary, there is solid evidence that a broad range of donors allocate aid in line with their (assumed) commercial interests.

2.3.2. International politics

A vast literature in political economy argues that donors use foreign aid as a tool of statecraft, to advance their foreign policy goals. Aid research confirms these suspicions: Aid is used to buy or reward the support of allies and geopolitically important countries (Alesina & Dollar, 2000; Kuziemko & Werker, 2006; Dreher et al. 2008b; Carter & Stone, 2015; Dreher, Lang, Rosendorff, & Vreeland, 2022). The most commonly used proxies of geopolitical importance of recipients are colonial ties, military alliances, the preference alignment with donors based on voting behavior in the UN General Assembly, and temporary membership in the UN Security Council (UNSC).

Studies using these proxy variables generally find that geopolitics drives the allocation of aid. Alesina and Dollar (2000) report that aid is positively associated with UN voting alignment and the number of years in which a recipient was colonized, suggesting that donors provide aid to maintain alliances. The pattern that donors give more aid to their former colonies has been repeatedly documented in various contexts. For instance, Weiler et al. (2018) find that donors favor their former colonies when allocating aid for climate change adaptation. Aid also seems to support security interests: total aid disbursements are positively correlated with military expenditures of the former Warsaw pact countries during the Cold War, but not thereafter (Boschini & Olofsgård, 2007). Similarly, military interventions by OECD/DAC members have a significant impact on aid allocation. Aid flows from these donors rise significantly when at least one donor dispatches soldiers in support of the target government, and recede after troops depart (Kisangani and Pickering, 2015). Dyadic panel data analysis shows that all major donors provide more aid to countries that vote in line with them in the UN General Assembly (Hoeffler and Outram, 2011).

While such measures arguably capture geopolitical importance, they are likely endogenous, rendering it difficult to untangle whether aid buys support or whether aid is given to already-aligned countries. Timeinvariant variables like colonial heritage are predetermined but correlated with other key variables of interest, like institutions (Acemoglu et al., 2001). Hence, other research has turned to more methodologically attractive proxies, such as temporary membership in the UN Security Council. The timing of admission to the Council is plausibly exogenous to aid flows, which provides an opportunity to study whether donors seek to influence developing countries in positions of geopolitical importance with more aid. Kuziemko and Werker (2006) find that US aid increases by 59 percent when a country is a temporary member of the Council. Extending these findings to the multilateral level, Dreher et al. (2009) demonstrate that recipients benefit from an increased number of World Bank projects while being temporary Security Council members, which they argue reflects U.S. influence in the Bank. Building on this finding, Alexander and Rooney (2019) use UN General Assembly voting records to construct a 'contribution to disagreement' score in the UNSC, and find that the United States allocates more economic and military aid to countries posing the greatest risk to defeat US resolutions. Dreher, Lang et al. (2022) compile data on voting behavior on UNSC decisions and show that temporary Security Council members receive more bilateral US aid and multilateral financing only when they support US positions. The United States uses bilateral aid to incentivize the support of allies and uses its power over the World Bank and the IMF to channel multilateral finance to less friendly countries, hiding such contentious foreign policies.¹⁶

Looking beyond the United States, Hoeffler and Sterck (2022) find that African countries that vote in line with Japan in the UN General Assembly receive more aid from Japan. In a global sample, Dreher, Fuchs et al. (2022) show that China gives more aid to countries that vote with it in the UN General Assembly; the United States and DAC donors combined reward voting in line with the United States. There also is consistent evidence that smaller countries receive more aid per capita; scholars have interpreted this finding as evidence for donor interests in buying political favors, because aid for votes generates more "bang for the buck" when given to smaller countries. Claessens et al. (2009) find that this small-country bias has diminished over time.

Humanitarian aid, which is widely believed to be based on need only, is not shielded from geopolitical influences either (Fuchs and Siewers, 2023). For example, Fink and Redaelli (2011) study 270 natural disasters and find that although humanitarian need appears to be a major determinant of emergency relief payments, donors favor smaller,

¹³ Once adding country-fixed effects, the relationship becomes statistically insignificant in Hoeffler and Outram (2011) but not in Alesina and Dollar (2000).

¹⁴ Elasticities differ across the major donors however with the U.S. having the smallest elasticity among this sample of DAC donors (Hoeffler and Outram, 2011).

¹⁵ Effect magnitudes are positive but small: Weiler et al. (2018) find a 0.04% and Bayramoglu et al. (2023) find a 0.3% aid increase for a 1% increase in donor exports (see Table 1).

¹⁶ See Dreher and Lang (2019) for a review of the literature on how donors influence multilateral organizations.

geographically closer, and oil-exporting countries. They also display significant biases in favor of politically less-aligned countries as well as toward their former colonies. Disaggregating aid channels and aid types, Raschky and Schwindt (2012) show that donors choose aid channels and types of disaster assistance to reflect humanitarian needs, strategic interests, and institutional quality. Cheng and Minhas (2021) show that donor countries use natural disasters as opportunities to exert influence on strategic opponents through the allocation of humanitarian and civil society aid. Looking at the subnational distribution of emergency aid, Bommer et al. (2022) find that regional US emergency aid after natural disasters is more likely to benefit the birth region of the recipient leader: such regions receive between 50% and 86% more aid. While the bias is stronger in countries with weak bureaucracies, there is no evidence of influence of US commercial or political interests. Evidence on whether and to what extent strategic importance extends to sub-national regions within countries is more mixed: DiLorenzo (2023) and Berlin, Desai, & Olofsgård, 2023 find that World Bank aid to recipient leaders' birth regions does not vary systematically with temporary UNSC membership; the latter however report an increase in aid to regions populated by the ethnicity of the recipient country's leader at times of membership.

In summary, the focus on binary indicators of political salience arising from quasi-exogenous variation allows this part of the aid allocation literature to move beyond mere correlations, with sizeable effect magnitudes.

2.3.3. Domestic politics

The political environment in donor countries also affects their aid allocation (Milner and Tingley, 2010, Brech and Potrafke, 2014). For example, the ideological composition of donor governments affects the delivery channel of aid: while liberal governments prefer aid allocation through NGOs, more conservative governments prefer to give aid through direct bilateral government-to-government channels. Brech and Potrafke (2014) demonstrate that left-wing governments prefer grants over loans, especially to least developed countries. What is more, Greene and Licht (2018) show that left-internationalist governments increase disaster aid, while parochial counterparts cut spending on budget assistance and aid that bolsters recipients' trade viability. Conservative governments favor trade-boosting aid. One limitation of these studies is that they do not analyze variation across recipients.

However, donors also consider the domestic political environment in recipient countries when making aid allocation decisions; they prefer to cooperate with governments that share their political ideology, and use aid to help friendly regimes stay in power (Faye and Niehaus, 2012, Kersting and Kilby, 2016). Lskavyan (2014) finds that left-wing recipients receive more aid under left-wing US administrations, while the opposite holds for center-right recipients. Minasyan (2018) shows that the United States allocates 30 percent more bilateral aid to US-educated leaders with right-leaning political beliefs compared to those with leftleaning beliefs. Heterogeneity analysis reveals that these findings are driven by right-leaning US governments.

Other work shows that donors seek to influence elections. Faye and Niehaus (2012) use a differences-in-differences strategy and find that recipients that are politically closely aligned with a donor receive more aid during election years. This pattern holds only in competitive elections, is absent in US aid flows to non-government organizations, and is driven by bilateral alignment rather than incumbent characteristics.¹⁷ Scrutinizing this effect at the multilateral level, Kersting and Kilby (2016) investigate how World Bank lending responds to upcoming elections in borrowing countries. In monthly disbursement data, they find that investment project loans disburse about three months faster where countries are aligned with the U.S. in the United Nations.

Moreover, disbursement accelerates in the run-up to competitive executive elections if the government is geopolitically aligned with the U.S. but decelerates otherwise.

Subnational aid research provides insights into how 'global electioneering' plays out at the local level. A key mechanism is to allow recipient leaders to reward key constituencies (Hodler & Raschky, 2014; Jablonski, 2014; Dreher, Fuchs et al., 2019; Eichenauer, Fuchs, Kunze, & Strobl, 2020; Bommer, Dreher, & Perez-Alvarez, 2022). Examining aid flows to Africa, Dreher, Fuchs et al. (2019) find that Chinese aid to birth regions of the country's leader is about 100% higher than what these same regions receive at other times. They find this effect to be stronger in regions with executive elections, suggesting electoral motives are at play. Jablonski (2014) shows that aid helps incumbent governments win elections in Kenya. Öhler and Nunnenkamp (2014) find similar results for India. Whereas Dreher, Fuchs et al. (2019) did not find an increase in World Bank aid to subnational regions where major populations have the same ethnicity as the country's leader, Berlin, Desai, & Olofsgård (2023) show that leaders bring home 26% more World Bank projects to co-ethnic regions when their country serves as temporary UNSC member. Dreher, Fuchs et al. (2019), Berlin et al. (2023) and DiLorenzo (2023) all do not find effects of leader birth regions on World Bank aid, on average.

In the above studies, donor intent is arguably difficult to establish, given that aid allocations at the local level are often co-decided by local political elites. Some recent evidence shows that aid from different donors is differentially flexible to being used for political ends. Specifically, African leaders direct Chinese aid towards regions with more political supporters, while the same does not seem to occur with World Bank aid (Anaxagorou et al., 2020).

In summary, the literature finds substantial evidence that domestic politics shapes the allocation of aid. Contrary to much of the aid allocation literature, the focus on the timing of elections in concert with indicators for political salience and importance arguably allows these studies to move beyond simple correlations.

2.3.4. Peace

Donors may give aid to promote peace or stabilize countries affected by conflict. For instance, Balla and Reinhardt (2008) find that some donors respond to conflict by increasing aid to countries with conflict onsets and countries that neighbor conflict zones; other donors, however, do the opposite. Fleck and Kilby (2010) show that US aid, especially to the poorest countries, increased with the War on Terror. Dreher and Fuchs (2011) echo this finding for the group of DAC donors.

Bermeo (2017) provides evidence to suggest that donors attempt to use aid to decrease negative spillovers from under-development abroad. While strategic ties to the donor explain allocation well in the Cold War, the post-2001 period is best understood by incorporating a role for "targeted development," as reflected in migration pressures. However, civil war has no significant relationship with aid allocations in either period, suggesting that conflict does not generally create sufficiently large negative spillovers for targeted development strategies.

Lis (2018) finds that donors allocate more aid for the promotion of governance, education and social capital to countries with terrorism within their borders, while they reduce aid to countries affected by conflicts. Disaggregating aid types, Lee and Kwon (2022) examine the determinants of aid for disaster risk reduction from Japan and South Korea—two East Asian countries that have shown a strong commitment to disaster resilience and peacebuilding. They find that both Japan and Korea allocate aid without much regard to the occurrence of disasters and conflict, but address climate vulnerability instead.

In sum, donors seem to condition aid on conflict and peace. They use aid to fight transnational terrorism and promote post-conflict development. Most studies indicate that donors also modify their aid strategies in countries experiencing ongoing armed conflicts; some increase their aid during such periods, while others decrease their assistance.

¹⁷ Faye and Niehaus (2012) find that a recipient receives US\$12 million more in aid before a competitive election if its UN voting is aligned by one standard deviation more with the U.S. than when it is not.

2.3.5. Migration

Migration emanating from developing countries has increased over the past decades. Donors may formulate policy responses to three types of migration: internally-displaced people (IDPs), cross-border migration (usually to other developing countries), and asylum-seekers in donor countries. Donors also face aid-eligible expenses for basic public service delivery to refugees in their own countries.

Empirical studies on the aid-migration nexus mostly build on a gravity model that examines dyadic aid flows between donor countries and recipient countries. Earlier literature has argued that diaspora networks in the donor country lobby for aid to their countries of origin (Lahiri and Raimondos-Møller, 2000). Empirical studies confirm a positive relationship between the number of migrants in the donor country and the aid allocations to their country of origin. For example, Bermeo and Leblang (2015) find that for the median origin country in their data, aid allocations by OECD donors increase by US\$242 for each additional migrant arriving at their borders. Czaika (2009) establishes that the number of asylum seekers in donor countries has a significant effect on the amount of bilateral aid to the origin countries of asylum-seekers. This effect is stronger when the recipient country also has a significant stock of expatriates living in the donor country. Further research examines the impacts of different types of migration-internally displaced people, cross-border refugees, and asylum-seekers-on aid spending. Czaika and Mayer (2011) find that donors respond to all types of migration pressure but are most sensitive to the number of asylumseekers at their borders. Comparing data across 18 bilateral donors, aid from Austria, Norway, and the United States reacts most strongly to migration.

Some research has also begun to unpack the types of aid that migration pressure affects. For example, Czaika (2009) finds that shortterm emergency aid is primarily spent in the countries that host refugees. Longer-term aid is given mainly to countries of origin instead, especially where these refugees have become asylum-seekers in the donor country. These results seem to suggest that donors focus on tackling the 'root causes' of migration rather than just managing its consequences. A key challenge in these analyses, however, is how to measure 'migration-relevant aid' (Clemens and Postel, 2018). Given many donors' desire to limit immigration, they could contemplate to support interventions such as vocational training, small and medium enterprise support, agricultural development, environmental preservation, urban development, food aid, and disaster preparedness efforts. The data show, however, that aid targeted to these sectors does not appear to flow in larger quantities to countries viewed as migrationrelevant (Clemens and Postel, 2018).

In sum, the literature suggests that the reduction of migration pressure from developing countries to some extent features among the donor motives for aid giving.

3. Aid effectiveness by donor motive

Aid effectiveness has traditionally been understood in terms of economic growth or income per capita as broad measures of development (Rajan and Subramanian, 2008, Doucouliagos and Paldam, 2010). The understanding of aid effectiveness has progressively expanded to include improvements in outcomes in social sectors, health and education, governance indicators, and in processes, like donor coordination (Knack and Rahman, 2007, Steinwand, 2015, Kotsadam et al., 2018, Rustad et al., 2019). Moving beyond total aid, research has increasingly considered that only aid in certain sectors, aid modalities, and aid delivery channels may be effective for a given set of outcomes (Dreher et al., 2008a, 2008b, Clemens et al., 2012).

Aid effectiveness may also depend on contextual factors, like the Cold War (Headey, 2008), recipient governance (Kosack, 2003, Burnside and Dollar, 2000, Winters, 2010, Annen and Asiamah, 2023), donor governance (Bermeo, 2011, Minasyan et al., 2017), and donor-recipient alignment like common culture (Minasyan, 2016) or political affiliation (Dreher, Minasyan and Nunnenkamp, 2015). While donors play a key role in influencing aid effectiveness, so do local elites (Angeles and Neanidis, 2009, Annen and Asiamah, 2023), as well as publics in both donor and recipient countries (Singh and Williamson, 2022, Wellner et al., 2023).

In spite of the multitude of outcomes considered in this literature, aid effectiveness is typically evaluated according to whether or not aid promotes development. The first part of this paper has documented that such outcomes seem to be important goals for donors to decide whether and how much aid to give. However, we have also concluded that variables related to recipient merit and donor interest are important determinants of aid. In what follows, we evaluate whether aid has been effective with respect to any of these goals: recipient need, merit and donor interest.

Much of the earlier literature on aid effectiveness reports conditional correlations rather than causal effects. Contrary to the aid allocation literature, recent work on aid effectiveness however has shifted toward credible causal-inference strategies, including quasi-natural experiments and instrumental-variable regressions (Carnegie and Marinov, 2017, Dreher and Langlotz, 2020), regression discontinuity designs (Dreher and Lohmann, 2015, Galiani et al., 2017), and difference-in-differences approaches (Knutsen and Kotsadam, 2020). While our focus is on this more recent work, we cover the most influential earlier studies as well.¹⁸

3.1. Recipient need

3.1.1. Economic development

Does aid promote economic growth and per capita income? Aid effectiveness research has been vexed with this question from its beginnings. The sheer amount of research has supported several metaanalyses (Doucouliagos & Paldam, 2009, 2015; Mandon & Woldemichael, 2023). These studies have shown that researcher ideology can affect the results they report and that pressure to publish seems important when selecting which results to report. However, while metastudies are important to help uncover such biases, they cannot establish whether aid affects economic development, because they do not consider whether these studies use credible identification strategies.

Following the unravelling of most of the instruments most commonly used in the earlier literature (e.g., Bazzi and Clemens, 2013), scholars have begun to disaggregate aid flows to develop more fine-grained theories on the aid–growth link (Ouattara and Strobl, 2008, Lessmann and Markwardt, 2016, Dietrich, 2021). For example, Clemens et al. (2012) argue that only parts of aid can reasonably be expected to affect growth in the short-run (though their empirical results are mixed). Others consider that only multilateral aid but not bilateral aid—due to differences in politicization—positively affects growth (Headey, 2008). Yet others consider differences across aid types, such as budget support versus project aid (Cordella and Dell'Ariccia, 2007, Ouattara and Strobl, 2008), loans versus grants (Butkiewicz and Yanikkaya, 2005) or the specific sector the aid has been given to (Dreher, Fuchs, Parks et al., 2021).¹⁹

We focus here on aid–growth studies with (credible) identification strategies, at either the country-level or subnational scales. At the country-level, results are mixed. Using data from 35 developing countries, Galiani et al. (2017) report an increase in growth by 0.35 percent for a 1 percent increase in aid-to-GNI. Their identification strategy

¹⁸ Table 2 in Appendix A reports effect magnitudes estimated in this literature. Analogous to Table 1, we again include those studies in the table that we think do best reflect the range of estimated effects.

¹⁹ Among those studies, magnitudes of positive growth effects of total aid range from 0.09 to 0.43 percentage points for a 1% increase in DAC aid (Headey, 2008, Öhler & Nunnenkamp, 2014, Clemens et al., 2012, Fuchs, Gröger, Heidland, & Wellner, 2023).

precludes a larger sample, as it exploits the (arguably) exogenous reduction in bilateral aid for countries that cross the threshold of income which makes them (in-)eligible for aid from the International Development Association (IDA). Using a global sample of 138 developing countries in 2000-14, Dreher, Fuchs, Parks et al. (2021) demonstrate that one Chinese development finance project boosts short-term economic growth by 1.00-1.49 percentage points, using a shift-share instrumental-variables design. In a brief extension focusing on the group of DAC donors combined and the U.S. separately, they find similar results. For the group of DAC donors, to the contrary, Dreher and Langlotz (2020) find no significant effect of bilateral aid on growth, in a sample of 97 recipient countries and the 1974-2013 period (their instrument interacts donor government fractionalization with the recipient-specific probability of receiving aid). This result matches those reported earlier in the time-series analysis of Nowak-Lehmann et al. (2012). Using another shift-share instrumental variable that exploits aid pushes by Muslim donors during oil price shocks, Werker et al. (2009) also find no significant effects of aid on economic growth.

Complementing country-level studies, recent work assesses the aid-growth link subnationally. Using geo-coded data for World Bank aid to up to 2,221 first-level administrative regions (ADM1) and 54,167 second-level administrative regions (ADM2), Dreher and Lohmann (2015) test whether aid affects nighttime light growth. While the study finds significant aid-growth correlations, an instrumental-variables design using the passing of the IDA threshold in a reduced sample finds no causal effects. Looking at even more-fine grained subnational grids, the analysis of Bitzer and Gören (2018) shows a positive correlation between World Bank aid and nighttime lights growth. Substantively, a 1% increase in the number of World Bank projects implies a 1.49-3.18% increase in nighttime lights growth. Focusing on Chinese aid, Dreher, Fuchs, Hodler et al. (2021) demonstrate that Chinese aid increases time light growth, regardless of political favoritism (as measured by aid going to the birth region of leaders). A 10% increase in Chinese aid increases nighttime light by 1.3%.

In summary, when it comes to Western donors the literature finds small significant effects of aid on growth or no significant effects at all. Compared to these results, estimates for Chinese aid are more consistently positive and larger.

3.1.2. Human development

While much of the literature focusses on economic growth, human development goals may be equally (or more) important for donors motivated by recipient need. Research has examined humandevelopment outcomes such as health, education, as well as poverty and inequality.

Given an increased focus on development assistance for health in policy circles, research has assessed the health impacts of aid. At the macro-level, Doucouliagos et al. (2021) show that the effectiveness of health aid in reducing infant mortality depends on the quality of governance in the recipient country. Several studies use subnational data to identify the health impacts of aid. Matching geo-located aid data and survey data from the Demographic and Health Surveys (DHS) in Nigeria, Kotsadam et al. (2018) show that aid reduces infant mortality. Another subnational study finds that Chinese aid is correlated with better education and lower child mortality in treatment areas but is not correlated with child nutrition (Martorano et al., 2020). Cruzatti et al. (2023) find that Chinese aid increases infant mortality at the subnational level relative to the country-average, but decreases mortality at the national level. Furthermore, Rustad et al. (2019) investigate whether aid mitigates adverse health impacts of droughts among children under 5 years of age, drawing on DHS survey data and geo-referenced World Bank aid data. Among children exposed to a drought, prior aid is associated with significantly reduced weight loss, suggesting that multilateral development aid improves recipient communities' capacity to cope with droughts.

Multiple studies investigate whether aid improves education

outcomes. At the macro-level, aid is found to be conditionally effective. Christensen et al. (2011) show that bilateral donors condition their primary education aid on recipient control of corruption and that bilateral aid is significantly related to improved school enrolment. Taking a sector-disaggregated approach, Birchler and Michaelowa (2016) find some evidence that aid has substantially increased primary enrolment. Aid for education facilities and training appears to have the highest impact. Similarly, Dreher et al. (2008a) show that aid for education increases primary enrollment, but domestic expenditure for education does not. The subnational analysis of Martorano et al. (2020) focuses on education in addition to health. They show that Chinese aid is correlated with more years of schooling in the recipient areas. Substantively, one additional Chinese project reduces child mortality by 0.9 percentage points.

A final aspect of human development concerns poverty and inequality. At the macro-level, Mahembe and Odhiambo (2021) examine the effect of aid on extreme poverty in Sub-Saharan Africa using dynamic panel regressions. Findings indicate that aid is effective in reducing poverty, particularly in the form of grants and multilateral aid. There is also evidence of a conditional effect of democracy on aid effectiveness for poverty reduction. At the subnational level, Munyanyi and Churchill (2022) take a narrower focus on energy poverty. Using five rounds of DHS surveys, they find that aid lowers the probability of energy poverty: proximity to an aid project of below 25 kilometers reduces the likelihood of being energy-poor by 3.3 percentage points. Further analysis suggests that income poverty, education, and economic growth are mechanisms through which aid affects energy poverty.

Related research focuses on whether aid can reduce income inequality. Employing dynamic panel estimations on macro-level data for 1971–2002, Chong et al. (2009) find that foreign aid is conducive to a more egalitarian income distribution under higher-quality institutions; however, this result is not robust to different model specifications. Foreign aid even leads to more inequality in democratic developing countries while the effects are negligible in autocratic countries (Bjørnskov, 2010). The findings on inequality thus appear to be inconsistent.

Overall, aid is sometimes effective in improving human development in terms of health and education, especially if targeted at the relevant sector. The evidence base for aid's effects on poverty and inequality is limited.

3.2. Recipient merit

Considering that aid may be more effective if given to well-governed or democratic recipients (Burnside and Dollar, 2000) and the general effects of institutional quality on development (Acemoglu et al., 2001), the idea to enhance institutions through aid has gained popularity in policy circles. But is aid effective in improving institutions in recipient countries? A key distinction in aid effectiveness research is between political institutions and economic institutions.

Regarding political institutions, the literature has long been divided. On the one hand, some studies perceive aid through the lens of the 'resource curse,' arguing that foreign aid-like other unearned income-weakens institutions by undermining accountability to citizens and furthering elite corruption (Djankov et al., 2008, Bueno de Mesquita and Smith, 2010). On the other hand, Bermeo (2016) argues that aid is unlike oil, to the extent that donors can prevent that their aid is (mis)used to undermine democratic governance. The different conclusions of these studies are likely due to different time horizons: the negative relationship between aid and democratic change is confined to the Cold War period, while aid tends to foster democracy after the Cold War, even when considering that non-democratic recipients of particular strategic importance can still use aid to thwart change (Bermeo, 2016). A recent literature review suggests that fears about the unintended consequences of aid on governance quality may be exaggerated (Dijkstra, 2018). A plurality of studies generally support the view that aid can further

democracy rather than hinder it. However, aid modalities matter, and especially 'democracy aid' is more strongly associated with democracy than other aid (Gisselquist et al. 2021). Probing a variety of metrics including veto players, executive constraints, judicial independence, and physical integrity rights, Jones and Tarp (2016) find a small positive net effect of total aid on the quality of political institutions. This effect is driven by stable inflows of 'governance aid,' whereas other aid has no effect. Consistent with the notion that greater diversity of grassroots organizations fosters democracy, Ziaja (2020) finds that the number of democracy aid donors in a recipient country promotes democracy. The effect magnitudes are such that one additional donor increases democracy by 0.9 units on a scale of 0-100. Finally, exploiting as-if random increases in EU aid due to the rotating presidency of the EU Council, Carnegie and Marinov (2017) identify an effect of aid on democracy and human rights. Substantively, a one log-unit increase in EU aid causes a 1.88 points increase in the fourteen-point CIRI index of human rights, and a 2.03 points increase in the 20-point polity index.

A related branch of literature examines whether aid affects state institutions, specifically bureaucratic quality and control of corruption (Alesina and Weder, 2002). A key finding is that aid fragmentation—the proliferation of aid donors and aid programs—undermines bureaucratic quality. For example, Knack and Rahman (2007) show that aid undermines bureaucratic quality by poaching qualified staff from recipient-country administrations. Gehring, Michaelowa, Dreher, and Spörri (2017) show that the negative effects of fragmentation are not robust across sectors and only materialize in case of insufficient administrative capacity in recipient countries. Other work suggests that aid increases corruption through the 'voracity effect'-a more-thanproportionate increase in fiscal redistribution toward unproductive ends (Alesina and Weder, 2002). In an attempt to resolve seemingly contradictory findings on the aid-governance link, Brazys (2016) argues that aid can both improve and inhibit governance and finds marginally decreasing and eventually negative returns to aid with respect to the ICRG index and most World Bank Governance indicators. Dreher and Gehring's (2012) summary of the earlier literature that investigates economic institutions also provides nuanced conclusions: In the post-Cold-War era, economic freedom tends to increase with aid, while the effect of aid on freedom was more negative during the Cold War. Effects depend on aid types, with aid given to strengthen trade or given by multilateral organizations being more effective. More recent evidence from 108 countries in 1971-2010 shows that aid increases economic freedom in democracies, but decreases it in autocracies (Dutta and Williamson, 2016). Pavlik et al.'s (2022) matching analysis shows no substantial average effect of overall aid on recipients' economic freedom, while increases in aid related to governance lead to small increases in economic freedom.

To obtain more credibly causal estimates of aid effectiveness, the literature has turned to subnational analyses. Here, scholars leverage either exogenous variation in the timing of aid projects or compare aidreceiving regional units to other units with similar background characteristics. For example, Chinese development flows seem to lead to an increase in corruption when comparing regions that received aid projects to regions that will receive them in the future; no significant effects exist for World Bank aid (Brazys et al., 2017, Isaksson and Kotsadam 2018a, Dreher, Fuchs et al., 2022). Overall effect magnitudes are substantial: individuals living near Chinese aid projects report 17-32% more corruption incidences (Brazys et al., 2017, Isaksson and Kotsadam 2018a). Probing potential mechanisms, research has shown that Chinese aid fuels local corruption, discourages trade union involvement, and reduces horizontal checks and balances (Isaksson and Kotsadam 2018b, 2020, Ping et al. 2022). Evidence reported in Dreher, Fuchs et al. (2022), however, comes to the opposite conclusion. They find that local exposure to a Chinese development project reduces the probability that survey respondents admitted to paying bribes to the police by 18.2 percentage points.

quality, democracy, and human rights is mixed. Studies focusing on democracy aid, governance aid, and aid by democratic donors tend to find positive effects.

3.3. Donor interests

3.3.1. Commercial interests

Aid may advance commercial interests in different ways, with different implications for how its effectiveness should be measured. A narrow understanding of donor interest would emphasize benefits for donor exports, or for export-oriented companies in the donor country. A broader understanding of commercial interest, however, would emphasize the expansion of trade more generally, which will offer collective benefits for all donors. This distinction between objectives is reflected in aid types: donors could pursue narrow commercial interests with tied aid—a practice that DAC-donors have collectively agreed to phase out over the past decades (Carcelli, 2023). Alternatively, donors could provide 'aid for trade,' which is specifically designed to create an enabling environment for developing countries to integrate into global markets.

Studies that test the commercial effects of aid in a narrow sense find that aid can promote donor exports but that donor competition can severely undermine these commercial benefits. Using time-series data and dynamic OLS regressions for Germany, Nowak-Lehmann et al. (2009) estimate an average return of up to US\$1.50 for every US\$1 of German aid in the 1962–2005 period. The authors also find strong evidence of crowding-out in that bilateral aid from other EU members significantly reduces exports from Germany to aid recipients.

Follow-up research has distinguished different aid types and sectorspecific trade. Focusing explicitly on tied aid, Martínez-Zarzoso et al. (2014) examine whether bilateral aid promoted bilateral exports to recipient countries. They find an average positive effect of bilateral aid on exports, which appears to depend on the extent to which donors tied aid to exports. The estimated effect—a 0.04% increase in donor exports for a 1% bilateral aid increase—decreases over time and is no longer statistically significant in 2000–07, suggesting donor compliance with DAC recommendations of untying aid. With respect to the effectiveness of sector aid, Martínez-Zarzoso et al. (2016) show that every US\$1 of German aid implies a US\$0.83 increase in German exports to recipient countries. The sectors that seem to benefit most from aid-induced demand are machinery, electrical equipment, and transportation, in line with other macro-level studies (Younas, 2008).

Focusing on aid impacts on recipient-country exports and productive capacity, Nowak-Lehmann et al. (2013) study aid effectiveness on recipient-country exports and find no effect. Probing the mechanism behind these findings, Groß and Nowak-Lehmann (2022) examine whether aid affects productivity. Using quantile regressions for the 1972–2009 period, they find evidence that aid reduced total factor productivity, especially in more productive countries.²⁰

While total aid is ineffective in increasing recipient-country trade, Martínez-Zarzoso et al. (2017) find that "Aid for Trade" (AfT) promotes goods-and-services exports, mainly for countries below the median of the conditional distribution of exports. For an additional US\$1 of AfT, exports are predicted to rise by up to US\$3.66. Subnational aid effectiveness analysis confirms the positive impact of aid for trade. Using georeferenced data on AfT projects and activity of nearly 150 exporting firms in Nepal, Brazys and Elkink (2021) find that proximity to (more) AfT projects improves export performance.

In sum, most studies find that aid, especially AfT, increases trade. Effect magnitudes appear to be sizeable, although more recent studies find smaller effects than earlier ones (Nowak-Lehmann et al., 2009, Martínez-Zarzoso et al., 2014, 2016). Moving beyond aggregate

Overall, the evidence for whether aid can improve institutional

 $^{^{20}}$ The average negative effect is small though: a 1% increase in aid reduces total factor productivity by 0.02%.

measures, the literature finds significantly positive aid effects in specific sectors and for specific aid types, notably aid-for-trade.

3.3.2. International politics

To assess whether aid is effective in terms of helping donors achieve foreign policy goals, studies have considered to what extent aid recipients align their policies to match donor preferences. One obvious example is China's use of foreign aid to promote the one-China policy (Dreher, Fuchs et al., 2022, Hoeffler and Sterck, 2022). Using data on U.S. aid disbursements in 1985–2010, Carter and Stone (2015) find bilateral aid to be effective for buying votes in the UN General Assembly. Extending these results beyond bilateral aid, research also suggests that multilateral aid effectively buys votes (Dreher and Sturm, 2012). Dreher, Lang et al. (2022) find that multilateral loans from the World Bank and the IMF as well as bilateral U.S. aid increase for temporary UNSC members that voted with the United States on all votes there, but not for members that defected at least once in a given year.

In addition to support for resolutions, donors may also vie for one of the temporary seats in the UNSC themselves. Donors may therefore have incentives to secure support for their candidacy. Testing this, Reinsberg (2019) finds that donors increase their "multi-bi" aid in the run-up to an election in which they vie for a seat, but not other flows of aid. While the UNSC has been the focal institution of interest in this literature, Dippel (2015) finds evidence to suggest that Japan rewards countries when they join the pro-whaling bloc in the International Whaling Commission.

In sum, there is consistent evidence across different settings to suggest that aid donors are effective in using aid flows to affect the voting behavior of aid recipients in various international fora. A caveat in this literature is that it is notoriously difficult to differentiate between buying and rewarding such votes because trading votes for aid is a repeated, strategic, and reciprocal interaction between donors and recipients (Dreher, Lang et al., 2022).

3.3.3. Domestic politics

Aid effectiveness in terms of influencing the domestic politics of recipients can be assessed in multiple ways. On the one hand, complementing attempts to influence recipient-government behavior (Carter & Stone, 2015, Dreher, Lang et al., 2022), aid may be seen as effective if it helps boost donors' image with local populations (Goldsmith et al., 2014, Dietrich et al., 2018, Blair et al., 2022). On the other hand, aid may be effective if it helps allied recipients to stay in power, through financing of public goods, private goods, or changing people's perceptions about governments' competence, efficacy, or legitimacy (Jablonski, 2014, Cruz and Schneider, 2017, Winters, 2019). Arguably, donor intent is difficult to infer in these cases, and some of the downstream effects of aid may be unintended; however, donors must be at least indifferent toward these outcomes to tolerate them.

Foreign aid is a potential source of 'soft power.' While soft power may be operationalized in different ways, one is to assess whether aid can win hearts and minds for the donor. This likely is a difficult undertaking: experimental evidence shows that recipient populations with long experience of aid are suspicious of donor motives and therefore prefer domestically-financed programs (Singh and Williamson, 2022). The combined results from the literature suggest that aid can buy public goodwill only under certain conditions and may have unintended consequences. For example, Tokdemir (2017) finds that US aid appears to feed anti-Americanism among the losers of aid in autocratic countries. To identify losers, the analysis uses a survey question on "how things are going in the country." However, where aid has clear benefits, such as in the case of the US aid program on HIV/AIDS, it seems to substantially improve perceptions of the United States (Goldsmith et al., 2014). Similarly, an informational experiment about a US-funded health project in Bangladesh demonstrates that explicit information about US funding slightly improved general perceptions of the United States, even though it did not alter opinions on substantive foreign policy issues (Dietrich et al., 2018).

Soft power has gained attention given the mounting great power competition between the U.S. and China. Recent evidence shows that Chinese aid to Africa reduces beneficiaries' support for the Chinese government and increases support for the U.S.; conversely, US aid increases support for the U.S. and other Western powers, as well as liberal democratic values (Blair et al., 2022).²¹ Contrary to these findings, Wellner et al. (2023) estimate that the completion of one additional Chinese development project in a recipient country increases public support for the Chinese government by about 3%.

Donors may also give aid with the intent to bolster support for friendly regimes. Numerous studies establish positive effects of aid on incumbency support (Cruz and Schneider, 2017, Knutsen and Kotsadam, 2020, Kersting and Kilby, 2021), although effects vary across donors (Briggs, 2019, Isaksson and Kotsadam, 2020). Incumbents can use World Bank projects to bolster their support. By matching locational data for 101,792 respondents in five survey waves and 4,245 World Bank projects, Knutsen and Kotsadam's (2020) grid-cell analysis shows that prospective incumbent support is higher in cells with active projects. Substantively, incumbent support increases by 5.5 percentage points for an active aid project. These differences are due to increased trust in the incumbent; no incumbency support effects are found for Chinese aid projects (Isaksson and Kotsadam, 2020). These results highlight a potential perilous effect of aid: it can polarize politics by creating winners and losers, with adverse consequences for incumbent governments and allied donors (Eichenauer, Fuchs, & Brückner, 2021; Isaksson & Kotsadam, 2020).

Aid has also been shown to affect elections, and leader survival more generally (Wright, 2009, Dietrich et al., 2018, Baldwin and Winters, 2020). Licht (2010) shows that aid stabilizes democratic leaders if they are new in office but harms them as competition and dissatisfaction grow; conversely, autocratic leaders can use aid to entrench themselves in the long run. Using a spatial difference-in-differences design in three African countries, Briggs (2019) finds that aid receipt lowers support for incumbent presidents, potentially by undermining trust in the incumbent.

In sum, aid can affect politics, with sizeable effects. Aid can win short-term support for some donors, notably the U.S., while results for China are mixed. What is more, aid may both increase and decrease public support for incumbents, depending on its distributional effects.

3.3.4. Peace

Facing global political instability and civil war, some donors have attempted to use aid to build state capacity, notably in fragile environments and 'failed states' (Krasner and Risse, 2014).²² A significant body of work examines whether foreign aid can build peace. In his review article, Findley (2018) stresses that aid may have different effects for the onset, dynamics, and recurrence of civil wars. Zürcher (2017) arrives at a similar conclusion after reviewing 14 within-country studies and 5 cross-country studies on the development-security nexus: Aid in conflict zones is on average more likely to exacerbate violence than to dampen violence. While aid reduces violence when project implementation benefits from a relatively secure environment, aid exacerbates violence if it is misappropriated by violent actors or when violent actors sabotage aid projects in order to disrupt the cooperation between the local population and the government.

These findings suggest that the macro-context affects whether aid can effectively curb violence in post-conflict settings. An early

 $^{^{21}}$ Respondents living near completed U.S. aid projects have a 0.57 points lower support (35% of its mean) for China. Respondents near completed Chinese projects have a 0.2 points (12% of its mean) dampening effect on China support.

²² See Rohner (2023) for a recent survey on how countries can affect peace abroad, including the use of foreign aid. See Dreher, Lang et al. (2018) for a survey on aid in fragile environments.

generation of studies using panel regressions tends to find positive effects of aid on peace and stability. For example, McGillivray et al. (2008) show that aid has positive growth impacts in fragile states, even considering that only one-third of aid can be absorbed due to weak capacity. Similarly, Collier and Hoeffler (2002) find that aid reduces conflict risk (by 30 percent after five years) through its impact on economic growth and lower dependence on primary commodity exports. Sudden withdrawals of aid from Western donors significantly increase the likelihood of conflict onset (Nielsen et al., 2011)-a risk which turns out to be lower with the availability of funding from China (Strange et al., 2018). Other research has taken a sectoral approach. Girod (2012) finds that post-conflict aid is effective in preventing violence if donors have no strategic interests and recipients have no alternative financing options. Donaubauer et al. (2019) find that post-conflict aid is effective in improving social infrastructure but ineffective in improving economic infrastructure. Bearce and Tirone (2010) report that democratizing states that receive high levels of democracy assistance are less likely to experience civil conflict than countries that receive limited democracy aid. Finally, Gutting and Steinwand (2017) find evidence that fragmentation significantly reduces the risk of political destabilization associated with aid shocks.

Research using more advanced causal-inference strategies finds mixed effects of aid on conflict. Nunn and Qian (2014) demonstrate that an increase in US food aid increases the incidence and duration of civil conflicts, but has no robust effect on inter-state conflicts or the onset of civil conflicts.²³ Substantively, a 10% increase in US food aid causes a 0.7 percentage point increase in civil conflict incidence. The nuanced recent findings of Bluhm et al. (2021) show that while an increase in aid by 1 percentage-point increases the likelihood of transitioning from minor disputes to armed conflicts by 1.4 percentage points, it does not seem to trigger conflicts in genuinely peaceful countries.

Subnational studies also produce nuanced findings on the aid-conflict link. Gehring et al. (2022) examine the conflict impact of Chinese aid and World Bank projects at the regional level, finding that World Bank projects lower the likelihood of conflict, while Chinese aid is insignificant.²⁴ Considering wartime aid, Lyall (2019) studies how as-if randomly assigned aid-through the US-supported Afghan Civilian Assistance Program—affected Taliban attacks. The results show that the program was associated with a reduction in attacks against ISAF (by 23%), but not Afghan forces or civilians. Tempering these findings, other research shows that military aid can fuel conflict. Dube and Naidu (2015) study how US military aid to Colombian military bases affects district-level peace. Using worldwide increases in US military aid (excluding Latin America) to predict aid to Colombian bases, the study finds that US military assistance leads to differential increases in attacks by paramilitaries but has no effect on guerilla attacks. Aid also results in more paramilitary (but not guerrilla) homicides during election years, particularly in politically competitive municipalities. The findings suggest that foreign military assistance may strengthen armed non-state actors, undermining domestic political institutions. Finally, Crost et al. (2014) employ a regression discontinuity design that exploits an arbitrary poverty threshold used to assign eligibility for an aid program in the Philippines. They find that barely eligible municipalities experienced a large increase in conflict casualties compared to barelyineligible ones, due to insurgent-initiated incidents in the early stages of program preparation.

In sum, aid can affect conflict, either positively or negatively, and sizably. While many studies find overall beneficial effects of aid on conflict, other context-specific studies highlight that aid can also have destabilizing effects under certain circumstances.

3.3.5. Migration

A key question for donors is whether their foreign aid can fend off migration. This question has become prominent in the context of the 2015 European refugee crisis, when the number of refugees to Europe increased sharply. Besides other policy levers, such as more restrictive immigration policies, foreign aid has been touted as a strategy to mitigate migration pressure by tackling the 'root causes' of migration (Clemens and Postel, 2018). The literature concurs that even if aid could effectively address these causes, it could have the paradoxical effect of facilitating migration. As Azam and Berlinschi (2009) highlight, in poor countries, development does more to promote migration than it can to deter it.

Berthélemy et al. (2009) empirically establish the conditions under which foreign aid affects migration flows. They find that aid raises net emigration from the average poor country to high-income OECD countries. For higher-income recipients (above US\$7,348 per capita), more aid tends to discourage migration.

Aid inflows are reported to correlate positively with emigration from sub-Saharan Africa (Mughanda, 2011) and with illegal emigration from Latin America (Bandyopadhyay et al., 2014), while Lanati and Thiele (2018) find a negative correlation between aid and emigration worldwide. Instrumental-variables studies have found no robust causal evidence that total aid inflows to a country reduce refugee outflows from that country in the short-run (Menard & Gary, 2018, Dreher, Fuchs, and Langlotz, 2019). However, Dreher, Fuchs and Langlotz (2019) also reveal long-term effects of foreign aid, decreasing migration after four three-year periods, which appear to be driven by lagged positive effects of aid on growth—substantively, a 1% aid increase reduces refugee flows by 0.86%.

Going beyond total migration flows, Clist and Restelli (2021) consider asylum applications and apprehensions at borders as alternative outcomes affected by aid. Using migration data for Italy from 146 origin countries, their results imply an additional asylum application for every US\$162,000 in bilateral aid. While aid thus has small effects, they find robust evidence that irregular migration flows are significantly affected by conflict, poverty, and the pre-existing stocks from that country. Focusing on aid from the World Bank exclusively, Fuchs, Gröger, Heidland, and Wellner (2023) show that the announcements and disbursements of new aid projects reduce migration aspirations in the very short run, while in the longer run resulting improvements in living conditions increase migration. Substantively, survey respondents are 1.9 percentage points less likely to express migration preferences in the three days after project approval than in the three days before, while an aid disbursement of US\$130 million is related to an increase in regular emigration flows to the average OECD country by 6.5% (see Table 2 in Appendix A).

The literature has also begun to test whether different types of aid have different effects on migration. Gamso and Yuldashev (2018b) find that governance aid reduces migration rates from developing countries, while other types of aid have no effect. In follow-up work, Gamso and Yuldashev (2018a) compare the effects of rural and urban development aid on migration and find that countries that receive larger amounts of rural development aid have lower emigration rates. In a similar vein, Lanati and Thiele (2021) consider whether aid for health can affect the migration rates of doctors and nurses from developing countries. Using a standard gravity model, they show that aid for health has a negative effect on the migration of both nurses and doctors. A potential mechanism underlying these findings is that aid improves local health infrastructure.

Overall, the evidence on the relationship between aid and migration is mixed. A likely reason for the inconsistent findings is that aid can have different effects depending on the level of development in the recipient country and the time horizon that is studied.

²³ Christian and Barrett (2017) point to a number of methodical problems however.

 $^{^{24}}$ An aid increase by one standard deviation decreases the conflict likelihood by up to 1.98 percentage points (see Table 2 in Appendix A).

4. Do motives matter for aid effectiveness?

In this section, we link the literatures on aid allocation and aid effectiveness to take issue with the widely-held view that aid is generally ineffective. Our review suggests that aid is more effective than often argued once one considers its intended effects. This result implies that donor motives may play a key role for aid effectiveness. In the following, we review the literature that directly studies the view that motives matter.

4.1. The skeptical view: fungibility

A prominent view in the aid-effectiveness literature is that donor motives do not matter because aid is fungible. Where aid is fungible, it merely finances expenditures that would have occurred anyway, freeing up resources for purposes that may not be intended by its donors. For example, assume that a government wanted to build a school from its domestic revenues, but now manages to convince the donor to finance it. Weary of misuse of its aid, the donor specifically provides 'education aid,' which will indeed finance the school; but the freed-up domestic resources will now support military expansion. In other words, aid may not (only) be used for its intended purpose, thus counteracting donor intent and undermining effectiveness.

To test whether aid is fungible, scholars have often studied whether development aid props up military expenditure, a sector that is explicitly excluded by the definition of official development assistance (ODA) (Collier and Hoeffler, 2007, Langlotz and Potrafke, 2019). Feyzioglu et al. (1998) and Chatterjee et al. (2012) investigate the correlation between sector-specific aid and government expenditures and find that most aid is fungible. While few studies in this literature attempt to address endogeneity, even fewer can convincingly demonstrate the excludability of the chosen instruments. A recent study based on a credible identification strategy finds that foreign aid positively affects military expenditure, although effect sizes are small and driven by specific sub-samples (Langlotz and Potrafke, 2019). While providing some support for fungibility, the study also finds that aid provided by liberal market economies does not affect military expenditures, likely because such aid is more likely to bypass recipient governments. This finding bolsters the notion that donor intent, and thus the way donors engage, indeed matter.

This conclusion is supported further by recent research on the effect of Chinese aid on infant mortality. According to the analysis in Cruzatti et al. (2023), Chinese health aid is to a large extent fungible, displacing projects that would have had a net benefit on child health (and that would have been implemented without Chinese aid) at the subnational location the aid is given to. Yet, this result reflects the Chinese approach to deliver 'aid-on-demand': China provides aid with the intent to leave recipients much discretion as to how to use the funds. Fungibility is therefore no accident, but a deliberate policy for fostering political relations. Other donors, like the World Bank, have policies in place that try to ensure that their aid is additional rather than fungible. In line with this, subnational aid from the World Bank indeed reduces child mortality (Cruzatti et al., 2023).²⁵

In sum, while there is some empirical support for the fungibility of aid, donor motives and, consequently, the way in which donors engage matter for how fungible aid can be.

4.2. Motives (sometimes) matter

An emerging literature on aid tests whether donor motives matter for aid effectiveness (for recent surveys see Dutta and Williamson, 2019; Kilby, 2023). Kilby and Dreher (2010) formally derive the expectation that need-oriented aid should enhance growth while other aid should not. They first predict need-based aid with population, GDP per capita, and their interactions with colonial ties. A second-stage growth model then shows that need-based aid is positively related to growth, while other aid is negatively related to growth.

Researchers have begun to develop operational measures of donor motives. A number of studies use a simple post-Cold War indicator to capture the notion that donors-freed of their geopolitical imperatives-became more need-motivated. Indeed, studies find more positive effects of aid on growth in the post-Cold War era than during the Cold War (Headey, 2008, Bearce and Tirone, 2010). Similarly, studies find more benign aid effects on corruption or democracy after the Cold War (Charron, 2011, Bermeo, 2016), even though aid still appears to buy or reward UN votes after the Cold War (Carter and Stone, 2015). Other research considers that aid from different donors may have differential effects. Popular distinctions are between Nordic and other donors (Minoiu and Reddy, 2010), bilateral and multilateral donors (Minoiu and Reddy, 2010, Headey, 2008, Mahembe and Odhiambo, 2021), and China versus Western donors (Brazys et al., 2017, Isaksson and Kotsadam 2018a, Dreher, Fuchs et al., 2022). While these analyses are insightful, they run the risk of 'essentialism' in the sense that they do not uncover what makes aid from these donors more or less effective.

More surgical measures of donor intent are reflected in sectorspecific aid allocations, such as aid-for-trade, governance aid, or climate aid. Numerous studies unpack total aid to test whether sectorspecific aid has different effects. The broad conclusion from this literature is that sector-specific aid indeed achieves (some of) its intended effects: Aid for trade increases trade (Martínez-Zarzoso et al., 2017), governance aid improves institutions (Ziaja, 2020), and aid given to productive sectors seem to moderately increase growth (Clemens et al., 2012). Aid for other purposes is generally ineffective in achieving these specific sector objectives.

More recent research offers direct tests of how a donor motive affects the outcome. Dreher et al. (2013) and Dreher, Eichenauer and Gehring (2018) test whether aid is less effective when given for geopolitical reasons. While they do not identify causal effects of aid on development, they make use of the temporary nature and idiosyncratic timing of temporary UNSC membership. Dreher et al. (2013) show that World Bank projects given to countries while they hold a temporary seat and are in economic crisis are less likely to be evaluated positively than projects given to the same countries at other times. Dreher, Eichenauer and Gehring (2018) extend the test to all DAC donors and find that aid given to temporary members has a lower effect than aid given to the same countries when they are not on the UNSC. Given that parts of this aid is (geo)politically motivated (Kuziemko and Werker, 2006, Dreher et al., 2009), these results arguably show that politically-driven aid is less effective in promoting development.

Dreher, Fuchs, Hodler et al. (2021) turn the analysis to the subnational level and test whether Chinese aid going to the birth region of an African recipient country's leader is less effective in promoting luminosity there, but do not find this to be the case. Dreher, Fuchs et al. (2022) find similar results for a broader sample, both at the subnational and the country level. Their results equally show no evidence that the political allocation of funds reduces aid effectiveness.

In summary, the direct evidence on whether motives affect the outcome is mixed. Given that the odds of finding significant results in such tests are low—after all, only a fraction of the aid received at times recipients are important is politically motivated and researchers only observe the aggregate—the significant results of most papers arguably support the hypothesis that motives to some extent determine outcomes.

²⁵ A substantial number of studies investigates the fungibility of aid in the health sector. Lu et al. (2010) show that health aid is highly fungible. Van de Sijpe (2013b) overturns these results (addressing measurement error as also discussed in Van de Sijpe 2013a), which are in turn revised in Dieleman et al. (2013), who show that health aid channeled to governments is indeed highly fungible.

5. Evaluation and the future of aid effectiveness research

This survey started with a review of the aid allocation literature. While most studies in this literature report conditional correlations and often do not attempt to test causal effects, these correlations point to the multifaceted nature of donor motives when deciding whom to give aid to (and how much). Those papers that arguably come closest to identify causality by exploiting quasi-random variation in a country's or subnational region's political importance clearly show that donor interests in geopolitics or the recipients' domestic politics shape the allocation of aid. Conditional correlations suggest that additional donor motives—commercial or migration-related—matter, as does recipient need and merit.

The second part of this survey provides various pieces of evidence that support the view that these donor intents matter. First, the literature shows aid to be effective in addressing some of the donors' most prominent goals—by alleviating human development needs, averting global public bads, promoting trade interests, or fostering political ties. Second, the literature shows that aid given by some donors is more effective in promoting development than those given by others. Third, aid given to some sectors seems to be more effective that those given to others.

The literature on aid allocation and effectiveness has limitations. In many studies (on aid allocation, in particular), omitted variables and reverse causality loom large. Even when methods for causal identification are employed, results are less obvious than what one would hope for. Studies use different periods of time, donors, and recipients so their results are difficult to compare. Even for identical samples, different instrumental variables might show different results, for example because Local Average Treatment Effects differ.²⁶

These problems are best illustrated with the literature that examines the effect of aid on growth discussed above. Many papers do not find significant effects of aid on growth. Others do. We think a fair summary of this literature implies that the effect of aid by Western donors is either insignificant or positive and small. Estimates of the effect of Chinese aid are more consistently positive and larger. However, fewer papers have tested the effect of Chinese aid on growth and future work might well come to different conclusions. Studies that focus on subsets of aid, different outcomes, more fine-grained subnational locations or single donors more often report significant results, in line with the specific hypotheses brought forward in a paper. However, these papers are less numerous then those that focus on aid and growth, so their results might or might not hold up to further scrutiny.

With these caveats in mind, our reading of the literature implies that aid would more effectively promote development if donors more consistently focused on development as a primary goal rather than as a by-product alongside other motives like currying geopolitical favors, reducing migration to donors, or combating terrorism.

Moving forward, we suggest that new papers in the aid allocation literature focus on better identification strategies, to more consistently move this literature beyond its focus on conditional correlations. The aid effectiveness literature would benefit if new papers would connect more closely to existing ones. Wherever possible, a new paper to investigate the effects of aid should start with a replication of previous work, adjusted to the paper's setting. For example, a paper that introduces a new instrumental variable, should also test previous identification strategies on the same sample. Only in such setting would researchers know that the effects they find result from the new instrument, rather than different control variables or years and recipient countries included in the study.

Our review charts the way for several additional avenues of future

research. We hope that aid effectiveness research will consider donor motives more prominently. Much of the perceived ineffectiveness of aid is arguably because much of the literature has failed to consider donor motives and thus put an unfair yardstick against which to assess aid effectiveness. While we can only speculate about why donor motives have not featured more prominently in aid effectiveness research, we suspect that scholars may have been discouraged to do otherwise due to a lack of good measures of donor intent. Therefore, we suggest some promising avenues for future research.

Scholars should continue using disaggregated aid data, including aid types, aid sectors, and aid geography, to infer donor motives and to identify the impact of donor intent in aid effectiveness evaluations. We believe that sector disaggregation is a valid strategy to infer motives, even though it is less suitable for those motives that are not socially desirable. In these cases, researchers will need to use their contextual knowledge to identify situations in which aid plausibly supports selfish causes. A key example is the highly confined timeframe in which recipients serve on the UNSC. Similar positions of influence exist in other international bodies. We encourage researchers to broaden their scope of analysis to go beyond the already much-studied UNSC. A key advantage of such measures is that they can exploit the often arbitrary membership rules in international institutions. A further opportunity arises with the growing availability of subnational data. By leveraging data about the local geography of politics, such as the birth regions of leaders (or their spouses), we can infer politically-driven aid allocations within countries.²⁷ Similarly, we can use information on subnational elections.

Lack of data is a key limitation in advancing the research agenda on donor motives and aid effectiveness. Subnational data for a large set of recipient countries are available for a limited set of donors and years. Dreher, Fuchs et al. (2022) provide data for China over the 2000–2017,²⁸ AidData (2017) provides geocoded World Bank data for the years 1995–2014. Ongoing efforts like Bomprezzi et al.'s (2023) Geocoded Official Development Assistance Dataset (GODAD) aim to address this gap by geocoding aid projects from major DAC donors but have not yet been widely used.²⁹

Furthermore, we still have scarce systematic data on donors' domestic governance and policies from which we could infer aid motives: Do they strive for transparency in aid governance and aid policies? Do they have constitutional clauses, laws, or directives in place to steer the direction of aid policy? Do they have an autonomous aid agency that ensures the unapologetic pursuit of developmental objectives? Do they organize aid management with a view to minimize risks or to make an impact? And how collaborative are donors domestically-for instance in concert with subnational aid providers? Researchers have embarked on tackling these questions with new data. For example, the Subnational Donor Governance Dataset captures the extent to which the European regions have institutionalized development cooperation (Reinsberg & Dellepiane, 2023). Subnational donors are believed to be more development-oriented than their national counterparts, although systematic analysis is still lacking. Another example is the Citizen Aid Transparency Dataset, which captures the level of transparency on aid governance and aid policies of 212 bilateral aid agencies in 37 donors using over 120 distinct indicators (Reinsberg and Swedlund, 2023). Finally, research has begun to unlock the wealth of information contained in the DAC peer reviews, in which donor countries assess each other on key dimensions of aid practice, with the aim to distill best practices that can maximize developmental impact (Iannantuoni et al., 2022).

²⁶ For example, a number of studies has used donor-interest variables to instrument aid. As Dreher, Eichenauer and Gehring (2018) argue, such studies are likely to report the effect of politically motivated aid, which is likely to be less effective than other aid.

²⁷ Bomprezzi et al.'s (2023) Political Leaders' Affiliation Database (PLAD) provides such data at https://www.plad.me.

²⁸ Custer et al.'s (2023) update includes Chinese projects until 2021 but does not yet include geocodes.

²⁹ See http://godad.me/.

The literature on aid effectiveness has come a long way. Traditionally, it has investigated the effects of selected or all Western donors on outcomes at the country-year level. A second wave of papers investigated the conditions under which such aid is more or less likely to be effective, such as good governance, the geographic location of the recipient country, or non-linear effects of aid. A further set of studies started to disaggregate aid along sectoral lines, and relating it to sectorspecific outcomes. More recently, new data have allowed analyses for additional donors-China, in particular-and at subnational scales. These more recent developments have limitations. To the extent that fungibility matters, investigating all aid would be preferable to investigating slices of it. While subnational analyses allow the implementation of more rigorous identification strategies, this typically comes at the cost of holding country-level effects constant. If project spillovers are relevant or aid is fungible, subnational analyses will not identify the full effects of aid. Ideally, researchers should thus present results for all aid in addition to sectoral aid, and more aggregated results in addition to the fine-grained ones.

CRediT authorship contribution statement

Axel Dreher: Conceptualization, Writing - original draft, Writing -

Appendix A

Table 1

Studies on aid allocation

review & editing. **Valentin Lang:** Conceptualization, Writing – original draft, Writing – review & editing. **Bernhard Reinsberg:** Conceptualization, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

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Determinants of aid	Country-level studies	Subnational studies
Economic development	 Boone 1996 (1% decrease in GNP per capita is related to 0.035% increase in aid/GNP) Neumayer 2003b (1% decrease in GDP per capita is related to an increase in the share of multilateral aid relative to total aid by 0.3) Bermeo 2017 (1% decrease in GDP per capita is related to a 0.55% higher aid allocation) Hoeffler and Sterck 2022 (1% decrease in GDP per capita is related to an increase in aid from the UK by 1.9%, and of less for other donors) 	 Briggs 2017 (1% increase in the share of people of the richest wealth quintile in a region is related to 0.7% more aid to that region) Briggs 2018 (1% increase in nightlight intensity is related to an increase in the number of aid projects by 1.09%) Nunnenkamp et al. 2017 (no relationship between subnational income and WB aid)
Human development	 Younas 2008 (1% increase in infant mortality increases aid per capita by 0.35%; a one-unit increase in political rights increases aid by 0.35%) Thiele et al. 2007 (1% increase in undernourishment is related to a decrease in total aid by 0.5%.–Most other need outcomes correlate positively with aid.) 	 Yang et al. 2018 (no significant correlation between most health indicators and Chinese health aid; low under-five mortality rate related to more Chinese hospital projects, odds ratio: 0.97) Briggs 2018 (1% increase in child mortality is related to a decrease in aid amounts by 2.91%; 1% increase in infant mortality is related to a decrease in aid by 6.67%)
Quality of institutions, democracy, and human rights	 Carey 2007 (recipient with lowest governance quality receives 60% less aid from Germany, other donors not significant; no relationship between human rights and aid for most donors) Hoeffler and Outram 2011 (a one-unit increase in governance is related to an increase in US aid by 0.247% but a decrease in Japanese aid by 0.27%, effects for other donors are smaller or insignificant) Lebovic and Voeten 2009 (human rights shaming in the UN reduces WB aid by 0.28%; no effect of shaming on bilateral aid) Dietrich 2013 (a one-unit increase in governance quality reduces bypass probability by 30 PP) Winters and Martinez 2015 (a one-unit increase in governance quality increases aid by 0.44% for bilateral donors) Bermeo 2017 (a one-unit increase in governance quality increases the share of budget aid by 0.8 PP) Dreher, Fuchs et al. 2022 (a 1 SD-decrease in governance quality decreases Chinese <i>loans</i> by 69%; no relationship between institutional quality and Chinese <i>aid</i>) Alesina and Weder 2002 (a one-unit decrease in quality of governance increases aid as a percentage of government expenditure by 0.36%) McCormick and Mitchell 1988 (no relationship between human rights and uS aid) Neumayer 2003a (no relationship between governance and amount of aid) Hoeffler and Sterck 2022 (no relationship between governance and amount of aid) 	

Table 1 (continued)

Determinants of aid	Country-level studies	Subnational studies
Commercial interest	 Alesina and Dollar 2000 (a 1% increase in trade openness predicts an increase in bilateral aid by 0.45%) Hoeffler and Outram 2011 (a 1% increase in trade openness predicts an increase in DAC aid by 0.46%) Hoeffler and Sterck 2022 (a 1% increase in trade ties predicts an increase in aid by up to 0.69% among DAC donors, but not China) Dreher, Fuchs et al. 2022 (a 1% increase in trade ties predicts an increase in Chinese finance by up to 1.3%) Bayramoglu et al. 2023 (1% more donor exports predict up to 0.3% more climate aid) Weiler et al. 2018 (1% more donor exports predict up to 0.04% more adaptation aid per capita) 	• Nunnenkamp et al. 2017 (if a district has an additional FDI project, WB aid is 0.146% higher; no relationship between trade openness and WB aid, though trade is measured at state-level)
International Politics	 Alesina and Dollar 2000 (a 1-SD increase in the frequency of voting with the donor in the UNGA is related to an increase in US aid by 78%) Hoeffler and Outram 2011 (a 1-SD increase in the frequency of UNGA voting with the US is related to an increase in US aid by 76%) Hoeffler and Sterck 2022 (a 1-SD increase in UNGA voting with Japan predicts 23.7% more Japanese aid) Dreher, Fuchs et al. 2022 (a 1-SD increase in UNGA voting alignment with China predicts 3.5% more Chinese aid) Kuziemko and Werker 2006 (UNSC membership predicts 59% more US aid) Dreher et al. 2009 (UNSC membership predicts 73% more WB projects compared to non-members or 14% compared to the same country not serving as a member) 	
Domestic politics	 Lskavyan 2014 (left-ving governments receive 0.383% more US aid under left-wing US administration compared to a right-wing US administration) Brech and Potrafke 2014 (shift to the left by one point is related to increase in growth rate of grant commitments by 2 PP) Minasyan 2018 (US-educated leader with right-wing ideology receives 30% more US aid compared to left-leaning leader) Faye and Niehaus 2012 (US\$12 million (or 20% of average annual bilateral aid) more aid in competitive election years for a recipient that is 1-SD more aligned than the average recipient) Kersting and Kilby 2016 (disbursement of WB loans 3 months faster (or 10% of its mean)—in terms of reaching 25% of total disbursements—before competitive elections in aligned recipients compared to 1-SD less aligned recipients) 	 Dreher, Fuchs et al. 2019 (at least 100% more Chinese aid to regions when they are the birth region of a leader) Bommer et al. 2022 (between 50%-86% more US emergency aid to regions when they are the birth region of a leader) Anaxagorou et al. 2020 (2.96% more aid per capita from China to regions with 10 PP more political supporters, but not WB aid) Berlin, Desai, & Olofsgård, 2023 (26% more WB projects to coethnic regions when country is UNSC member compared to when it is not) Berlin et al. 2023, DiLorenzo 2023 (no effect of leader birth regions on WB aid on average)
Peace	 Balla and Reinhardt 2008 (US\$ 2.46 more aid per capita (or 17.4% of mean) for a 1-SD increase in conflict intensity in neighboring states, but effects vary by donor; US\$ 3.12 less aid per capita (or 76% of mean) for a 1-SD increase in conflict intensity in neighboring states, for example) Fleck and Kilby 2010 (80% more US aid to poor countries during War on Terror compared to Cold War, but 25% less US aid to rich countries) Bermeo 2017 (no relationship between civil war and aid) Lee and Kwon 2022 (Japan and Korea allocate aid without much regard to the occurrence of disasters and conflict) 	
Migration	 Bermeo and Leblang 2015 (DAC aid increases by US\$242 for each additional migrant arriving at their borders) Czaika and Mayer 2011 (a 1-SD increase in the number of asylum-seekers predicts 110% more development aid, and 238% more emergency aid) Clemens and Postel 2018 (no relationship between migration pressure and migration-relevant aid) 	

Note: The table shows effect magnitudes of selected studies and results. It includes those studies and results that we (admittedly to some extent subjectively) think best reflect the range of estimated effects. We omit studies that disaggregate donors and those that use non-standard measures. The table intends to give an overview of the range of estimated effect sizes rather than summarize the literature or the results of the included papers. SD: standard error; PP: percentage point; WB: World Bank.

Table 2

Studies on aid effectiveness

Effects of aid	Country-level studies	Subnational studies
Economic development	 Ouattara and Strobl 2008 (1% in increase in project aid per capita increases growth by 0.43 PP) Lessmann and Markwardt 2016 (the effect of 1% increase in aid ranges from 0.25 PP at lowest level of decentralization to -0.75 PP at highest level of decentralization) Clemens et al. 2012 (a 1% increase in aid per capita is related to a 0.1-0.2 PP increase in growth) Headey 2008 (a 1% increase in aid is related to a 0.09 PP increase in growth) Galiani et al. 2017 (0.35 PP increase in growth for 1PP increase in aid/GNI ratio) 	 Bitzer and Gören 2018 (1% increase in number of WB projects leads to 1.49-3.18% increase in nightlight intensity, or equivalently 0.45-0.95% in growth) Dreher et al. 2021 (10% increase in Chinese finance increases percapita night light by 1.3%, or about 0.3 PP growth) Dreher and Lohmann 2015 (no relationship between WB aid and nightlight growth) Dreher, Fuchs et al. 2022 (no relationship between Chinese projects and nightlight intensity globally)
		(continued on next page)

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Effects of aid	Country-level studies	Subnational studies
	 Dreher, Fuchs et al. 2022 (1 additional Chinese project leads to almost 1 PP more growth) Nowak-Lehmann et al. 2012 (1% net aid increase is related to a decrease in per capita income by 0.02%, not all specifications significant) Dreher and Langlotz 2020 (no relationship between aid and growth) 	
Human development	 Werker et al. 2009 (no relationship between Arab aid and growth) Christensen et al. 2011 (a 1-SD increase in bilateral education aid per capita is related to a 3.25% increase in primary enrolment) Birchler and Michaelowa 2016 (a 1-SD increase in education aid per capita is related to a 3.6% increase in net primary enrolment) Dreher et al. 2008a (a US\$1 increase in net primary enrolment) Mahembe and Odhiambo 2021 (a 10% increase in aid/GNI leads to a reduction in the poverty headcount ratio by 0.06%-the proportion of people living below US\$1.90/day) Cruzatti et al. 2023 (one additional health project from China reduces child mortality by 10 out of 1,000 children) 	 Kotsadam et al. 2018 (an additional aid project reduces child mortality by 1-2.5 PP, or 11-26%) Martorano et al. 2020 (an additional Chinese aid project reduces child mortality by 0.9 PP, for Chinese aid Munyanyi and Churchill 2022 (energy poverty 3.3% less likely by additional aid project) Cruzatti et al. 2023 (one additional health project from China increases child mortality by 8 out of 1,000 children)
Quality of institutions, democracy, and human rights	 Chong et al. 2009 (no unconditional effect of aid on inequality) Jones and Tarp 2016 (a 1% increase in aid/GDP is related to at least 3.33% increase of a standard deviation of an institutional measure) Ziaja 2020 (one additional donor increases democracy (0-100 scale) by 0.9) Carnegie and Marinov 2017 (a one log-unit increase in aid causes a 1.88 increase in human rights (0-14 scale), and a 2.03 increase in Polity (0-21 	 Isaksson and Kotsadam 2018a (individuals living near Chinese aid projects are 4.1 PP more likely (or 32% more likely) to have paid a bribe when dealing with the police) Dreher, Fuchs et al. 2022 (one additional Chinese project reduces corruption control by 0.13 (index from 0-6)) Brazys et al. 2017 (individuals near Chinese infrastructure projects
Commercial interest	 scale)) Nowak-Lehmann et al. 2009 (US\$1.50 more exports for every US\$1 of German aid) Martínez-Zarzoso et al. 2014 (1% increase in bilateral aid is related to an increase in donor exports by 0.04% on average; no effect in 2000-07) Martínez-Zarzoso et al. 2016 (US\$0.83 more exports for every US\$1 of German aid) Martínez-Zarzoso et al. 2017 (an additional 100% of aid for trade is associated with a 5.2% increase in total exports in the lowest quantile of the export distribution; US\$3.36 million are related to an increase in exports of US\$12.3 million after 2 years) Nowak-Lehmann et al. 2013 (no relationship between aid and recipient 	 bitarys et al. 2017 (mixtual as item emission initial initial projects 17% more likely to experience corruption, but WB aid insignificant) Brazys and Elkink 2021 (the odds of a firm to export versus not increase up to 0.816 for each aid-for-trade project in its 40km vicinity)
nternational politics	 exports) Dreher and Sturm 2012 (an increase of non-concessional IMF loans by 1% of GDP increases the percentage of voting coincidence by 0.26; an increase in non-concessional WB loans of 1% of GDP increases it by 0.9) Carter and Stone 2015 (Adding US aid to the regression improves predictions of democratic recipients' UNGA voting with the U.S. for 72 percent of observations) 	
Domestic politics	 Dietrich et al. 2018 (US aid does not alter opinions on substantive foreign policy issues) Licht 2010 (receiving aid during the first days of tenure increases a non-democratic leader's likelihood of coalition failure by 27%) 	 Jablonski 2014 (an increase in aid from the minimum to the maximum level in a constituency increases the estimated victory margin of an incumbent in that constituency by about 16 PP) Knutsen and Kotsadam 2020 (incumbent support increases by 5.5 PP (or 10% of mean) for an active aid projects compared to before the aid project had started) Cruz and Schneider 2017 (participating in a WB project increases the odds of re-election by a factor of 1.69) Wellner et al. 2023 (3% more support for China per Chinese project) Blair et al. 2022 (respondents living near completed US projects score 0.57 points (or 35% of the mean) lower on an index of perceptions o China than those living near planned US projects; respondents living near completed Chinese projects score 0.2 points lower (or 12% of the mean) for the project for the project for the project score of the project of th
Peace	 Collier and Hoeffler 2002 (30% lower conflict risk after 5 years for additional U\$\$1/capita in aid) Nielsen et al. 2011 (onset risk of conflict more than doubles—from 2.1% to 5.0%—if the average country experiences aid withdrawal) Strange et al. 2018 (aid shocks do not significantly increase the likelihood of conflict onset if the number of Chinese projects exceeds five) 	 mean) on an index of perceptions of China) Gehring et al. 2022 (a 1-SD increase in WB aid is associated with a decrease in the conflict likelihood between 1.64 and 1.98 PP-averag conflict likelihood is about 12%; conflict likelihood unaffected by Chinese projects) Lyall 2019 (23% fewer attacks for each aid project) Dube and Naidu 2015 (a 1% increase in US aid increases paramilitar attacks by approximately 0.0015 more in base municipalities, or by

- Dube and Naidu 2015 (a 1% increase in US aid increases paramilitary attacks by approximately 0.0015 more in base municipalities, or by 1.5% more above the mean paramilitary attacks of 0.1 over the sample period; 1.2% more aid increases government attacks by approximately 1% more in base versus non-base areas)
- Crost et al. 2014 (participation in WB-financed aid program increases conflict deaths by 1.0 and 1.7 casualties per year, a 110-185 percent increase in casualties relative to the mean in ineligible municipalities)

• Girod 2012 (increasing aid by US\$10 per capita in countries with low

resource rents and low strategic importance reduces infant mortality by

2%, while a similar increase in aid increases infant mortality by 21% in

recipients with high resource rents and high strategic importance and by

3% in recipients with high resource rents and low strategic importance)

• Gutting and Steinwand 2017 (at lowest level of donor fragmentation, an

aid shock increases conflict onset by 10 PP, at mean level of donor

• Nunn and Qian 2014 (a 10% increase in US food aid causes a 0.7 PP increase in the incidence of civil conflict, which is 4% of the mean) • Bluhm et al. 2021 (a 1 PP increase in aid/GDP leads to a 1.4 PP increase in the probability of transitioning from small conflict to armed conflict)

fragmentation, it is only 2.7 PP higher)

Table 2 (continued)

Effects of aid	Country-level studies	Subnational studies
Migration	 Lanati and Thiele 2018 (10% increase in total aid is associated with 1% less emigration) Bandyopadhyay et al. 2014 (a 10% increase in aid-to-exports reduces illegal immigration from Latin America by 1.35%, but increases immigration by 0.17% through the terms-of-trade effect) Lanati and Thiele 2021 (a 1% increase in health aid reduces the emigration rate of doctors and nurses by 0.1%) Dreher, Fuchs and Langlotz 2019 (1% increase in aid/GDP reduces refugee flows by 0.86% in the long term, after 12 years) Gamso and Yuldashev 2018 (a 1 PP increase in governance aid/GDP (60% of 1-SD) is related to a 0.14% decline in emigration) Berthélemy et al. 2009 (an increase in bilateral aid of 10% increases bilateral migration stocks by about 3%, though effect reverses above US \$7,348) Lanati and Thiele 2018 (10% more bilateral aid related to a 5 PP increase in migration by 1%) Mughanda 2011 (US\$100 more aid per capita is related to a 5 PP increase in migration from Africa) Fuchs et al. 2023 (aid disbursement of US\$130 million is related to an increase in regular emigration flows to the average OECD country by 6.5%) Clist and Restelli 2021 (1 additional asylum application per US \$162,000 in aid) Menard and Gary 2018 (no causal effect of aid on short-term emigration) Dreher, Fuchs and Langlotz 2019 (no causal effect of aid on short-term refugee flows) Gamso and Yuldashev 2018b (non-governance aid has no effect on migration) 	 Fuchs et al. 2023 (respondents are 1.9 PP or 8% less likely to express migration preferences in the three days after project approval than in the three days before)

Note: The table shows effect magnitudes of selected studies and results. It includes those studies and results that we (admittedly to some extent subjectively) think best reflect the range of estimated effects. We omit studies that disaggregate donors and those that use non-standard measures. The table intends to give an overview of the range of estimated effect sizes rather than summarize the literature or the results of the included papers. SD: standard error; PP: percentage point; WB: World Bank.

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