Forced Displacement and Asylum Policy in the Developing World[*]

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Abstract

Little theoretical or empirical work examines migration policy in the developing world. We introduce an original dataset of de jure asylum and refugee policies covering more than 90 developing countries that are presently excluded from existing indices of migration policy. We examine descriptive trends in the data, and test the determinants of asylum policymaking, as well as the effects of asylum policies on forced displacement flows. Qualitative evidence from interviews in Uganda bolster our quantitative results. A number of key findings emerge. Intense, proximate civil wars are the primary impetus for asylum policy change in the Global South. While wealthier countries tend to carry out restrictive changes, liberalizing changes are made by regimes led by political elites whose ethnic kin confront discrimination or violence in neighboring countries. There is no systematic evidence that repressive regimes liberalize asylum policy in exchange for economic assistance from Western actors. Developing world asylum policy matters because more liberal policies attract more migrants. This effect is conditional on policy knowledge. Transnational ethnic linkages and mobile penetration facilitate the spread of information about asylum policies and ease integration. Liberal policies on access to services, employment rights, and free movement are particularly attractive.

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Introduction

While recent debates over the European migrant crisis and U.S. border detention policy have galvanized attention on refugees in the West, much of the burden of hosting forcibly displaced persons (FDPs) is borne by the developing world: more than 86% of the world's FDPs reside in developing countries.[1] At the same time, there is a striking neglect of developing countries' refugee and asylum policies in both academic and policy circles (Boucher and Gest, 2018); a lacuna that contributes to a lack of understanding of what role these policies play in the decision-making of asylum seekers, if at all. This oversight is driven in part by a lack of data on asylum and refugee policies outside the countries of the Organisation for Economic Co-operation and Development (OECD), but also by the presumption that *de jure* policies are of little practical consequence in the developing world, where weak policy enforcement and limited policy knowledge are generally widespread.

We address these knowledge gaps, leveraging an original dataset—the Developing World Refugee and Asylum Policy (DWRAP) dataset. The dataset allows us not only to identify temporal and spatial variation in developing countries' *de jure* policies toward FDPs, but also to analyze both the determinants and effects of asylum policy reforms.

Understanding the trajectories, determinants, and consequences of *de jure* asylum policies in the developing world is of high priority because of the disconnect between conceptual models of migration policy and empirical realities. Although migration—particularly forced displacement—is concentrated in the Global South, the existing literature exhibits a substantial North-centric bias.[2] Indeed, as Adamson and Tsourapas (2019, p. 2) note, "the field of migration studies lacks an adequate comparative framework for understanding the emergence of different forms of state migration management regimes outside the Global North." This represents a critical challenge for migration

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[1]This figure refers to global stocks of refugees and asylum-seekers combined (United Nations High Commissioner for Refugees, 2016).

[2]For studies of migration policy choice in the West, see Hix and Noury (2007); Hatton (2009, 2016); Peters (2014, 2015, 2017); Koopmans and Michalowski (2017); Shin (2019).

scholarship because asylum policymaking is likely to follow a different path in the developing world (Jacobsen, 1996; Natter, 2018; Norman, 2018, 2019). In particular, the size of migrant flows, the extent of external pressure, and the strength of transnational kinship networks (due to artificiality of borders) are greater in the Global South, while state institutions, and the ideology of ruling parties on a right-left spectrum are significantly weaker, compared to the developed world. Moreover, because the vast majority of refugees that developing states host are from neighboring countries, policy impacts are expected to be more localized in the developing than in the developed world. Examining developing world asylum policy, then, stands to facilitate theory-building, new empirical tests of existing theories, and improved policy planning.

This paper makes five discrete contributions to the growing literature on forced migration policy. First, we develop a new set of theoretical expectations with respect to the determinants of *de jure* asylum policy in the developing world, and test them using DWRAP. To the best of our knowledge, ours is the first study that assesses asylum and refugee policymaking in a large panel of developing countries.[3] Specifically, we show that (1) developing countries alter their asylum policies when intense civil wars break out in neighboring countries, raising expectations of future flows of FDPs; and that (2) policy liberalization is more likely when co-ethnic kin are excluded from power in neighboring countries. Contrary to expectations and popular discourse, we do not find strong evidence that asylum policy liberalization is used by repressive regimes dependent on external economic assistance to curry political favor with Western states keen to deflect asylum flows from the Global North.

Second, we directly model diffusion dynamics in forced migration policymaking (see also Timmer and Williamson, 1998; Rayp, Ruyssen and Standaert, 2017). Existing work identifies migration policy externalities (Czaika, 2009; Bubb, Kremer and Levine, 2011) and recognizes the potential for cross-national policy emulation (Meyers, 2002; Natter,

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[3]To date, research on migration and asylum policies in the developing world has tended to rely on case studies. See, for example, Dzimbiri (1993); Milner (2009, 2014); Tsourapas (2017, 2019); Natter (2018).

2018). As such, explicitly modeling cross-border policy interdependencies is a critical empirical step, and one that we hope to see expanded in future scholarship.

Third, extending emerging research on the relevance of policy frameworks to migrant decision-making (Czaika, 2009; Fitzgerald, Leblang and Teets, 2014; Alarian and Goodman, 2018; Balcilar and Nugent, 2019; Holland, Peters and Sánchez, 2019), we show that asylum policies influence FDP's destination choices. While a handful of studies indicate that policies are relevant in migrant flight patterns, no prior work has estimated these effects in the context of South-South asylum-seeking. Pairing our statistical analyses with insights gleaned from qualitative fieldwork in Uganda, we show that asylum and refugee policies factor into FDP decisionmaking. We also provide evidence that policies for service provision, employment, and free movement are especially attractive pull factors. Moreover, in contrast to evidence from data on the OECD (Fitzgerald, Leblang and Teets, 2014; Alarian and Goodman, 2018), we do not find a significant association between asylum-seeking and citizenship or political rights. Pointing to (previously unrecognized) heterogeneity in the relative importance of refugee policy domains across developing and developed host countries is important for both theory and policy.

Fourth, our study helps clarify a puzzle for existing analyses of the effects of policies on flows of FDPs: how FDPs accumulate detailed policy knowledge on potential host countries.[4] We highlight transnational ethnic kin networks and mobile-phone and internet penetration as sources of information diffusion about *de jure* refugee and asylum policies. Ethnic kinship networks have been previously identified as a pull factors *directly* affecting migration choice by reducing integration costs. However, we show that part of the effect of kinship networks on destination choice is *indirect* by increasing knowledge about the asylum policies of (potential) target countries.

Fifth, we introduce a detailed new dataset which more than doubles the country coverage of existing asylum policy indices. This dataset positions researchers to evaluate

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[4]See also Holland and Peters (2020), who show that poor conditions like poverty and violence in host states prompt FDPs to search for information about policy openness elsewhere.

existing empirical findings in a broader comparative context, and to explore new questions about the determinants and effects of asylum policies in the developing world. The prevailing neglect of policy regimes in developing countries represents a critical knowledge gap in the extant literature because, as our findings suggest, policy trajectories are both different and consequential in the developing world. For example, existing studies focusing on asylum policy in OECD countries find increases in the level of policy restrictiveness over time (Figure 3 below). By contrast, asylum and refugee policies in the developing world are becoming more liberal over the same time frame (Figure 2 below). These opposing trajectories open new avenues for future research. Further, our method of coding asylum policies is simple and scalable. Whereas many existing indices of migration policy involve a substantial number of subjective judgments, we rely on legal texts, demonstrating how UNHCR submissions to the Universal Periodic Review can be used to identify the corpus of asylum and refugee laws across countries. In doing so, our guidelines make it straightforward to both replicate our coding and extend it to new countries in the future.

The remainder of the paper proceeds as follows. First, we develop a set of hypotheses on the determinants of asylum policymaking in developing countries. Then, we introduce our new dataset and describe trends in asylum policymaking. Third, we test our empirical expectations focusing on both when policies change and the conditions under which they liberalize. Finally, to highlight the value of studying asylum policies in the developing world, we show that liberal asylum policies do attract more migrant inflows, with transnational ethnic kin and mobile penetration serving as likely vectors for the diffusion of policy knowledge.

The Determinants of Developing World Asylum Policy

The neglect of the Global South in research on migration and asylum policymaking is a prominent shortcoming (Milner, 2009; Boucher and Gest, 2018; Natter, 2018; Norman, 2018; Adamson and Tsourapas, 2019). We help close this gap, building on a recent qualitative literature on migration policy regimes in the developing world. We hypothesize

about the factors likely to cause changes in asylum and refugee policies, and, conditional on policy change, factors that influence the direction of reform. Our starting point is the intuition that countries have incentives to reform their policy frameworks when expecting future inflows of FDPs to increase. Czaika (2009)'s and Bubb, Kremer and Levine (2011)'s models suggest that under those conditions, the concomitant increase in expected (political and economic) costs of hosting should incentivize shifts toward greater policy restriction *ceteris paribus*.

Extending this insight, we focus on the principal cause of asylum-seeking, and hence the key factor countries use to calibrate expectations of inflows: armed conflict (see Figure 4, bottom panel). Specifically, we hypothesize that armed conflict in a country's neighborhood is the primary impetus for migration policy change in the developing world. This contention dovetails with findings in both developed (Rudolph, 2003; Karyotis, 2007) and developing (Jacobsen, 1996; Chaulia, 2003) countries about the relationship between security threats and migration policy changes.

However, we depart from Czaika (2009)'s and Bubb, Kremer and Levine (2011)'s models, which explicitly assume that policy restriction is the likely response to conflict in a neighboring country. We contend that increasing restrictiveness is only one possible response; policy liberalization can also occur in the context of regional armed conflict. In developing countries, legacies of colonialism left artificial borders and numerous split ethnic groups (Alesina, Easterly and Matuszeski, 2011). As a result, conflicts in one state often affect groups with kinship ties in neighboring states. Conflicts, then, may precipitate policy liberalization when the transnational ethnic kin of groups in a potential destination country are affected by the conflict ongoing in a neighboring origin country (Zolberg, Suhrke and Aguayo, 1989; Rüegger and Bohnet, 2018). This perspective deviates from Czaika (2009)'s and Bubb, Kremer and Levine (2011)'s expectation that policy restriction increases monotonically with the expected magnitude of inflows, and suggests countries may also be willing to bear greater costs to host kin groups.

We thus argue that in the context of the developing world, armed conflict in a states' neighborhood is a primary impetus for reform to refugee and asylum policy. The

direction of policy change conditional on conflict, however, is contingent on a host of other factors including kin networks.

H_1: **Developing countries are more likely to alter their asylum policies when armed conflicts are occurring in their neighborhood.**

The growing literature on migration and asylum seeking policymaking in the developed world offers some guidance about the correlates of liberalization and restriction. However, models based on policy in the Global North—such as those focusing on ruling party ideology or the size of the welfare state—may not generalize to the Global South. As such, we focus our empirical analysis on three core factors we expect to affect the direction of policy change in developing countries.

First, we argue that transnational ethnic kinship networks should exert a powerful influence on asylum policy reform. In the context of international migration, ample evidence suggests migrant networks are a powerful draw to specific destinations (Fitzgerald, Leblang and Teets, 2014). Before individuals migrate, kin groups can relay information about the conditions in prospective destinations, as well as risks along the way. Within destination countries, these networks ease integration (Rüegger and Bohnet, 2018), reduce the risk of xenophobic attacks (Freibel, Gallego and Mendola, 2013), and help secure higher-paying jobs (Munshi, 2003) and better housing (Light, Bernard and Kim, 1999). However, while transnational kin are posited as a "pull" factor in models of international migrant flows, little existing work explores the relevance of kinship in migration and asylum policymaking (but see Goldin, 1994). Ethnic kin are important influences on policy in the developing world, where borders were often drawn arbitrarily, splitting ethnic groups between countries (Alesina, Easterly and Matuszeski, 2011).

Specifically, asylum policy liberalization is more likely when foreign co-ethnics of national political elites are excluded from political power in their neighboring home countries. Under such conditions, prospective asylum policy changes are likely to affect individuals with whom policymakers share identity ties. Liberalization, then, follows as a function of co-ethnic solidarity. Relatedly, a failure to assist ethnic kin in a time of need may prove to be highly unpopular for incumbent politicians. Our expectation contrasts

somewhat with Adida (2014)'s finding that co-ethnicity between migrants and hosts can promote exclusion. Unlike Adida (2014), however, we focus on refugees and asylum-seekers, rather than labor migrants, and evaluate the incentives of policymaking elites in the host state, rather than of immigrant community leaders. When co-ethnics seek sanctuary from persecution, host state elites have incentives to ameliorate conditions by liberalizing policy. Policy liberalizations undertaken in Armenia and Azerbaijan between 1992 and 1999 are instructive. As conflict over a disputed region, Nagorno-Karabakh, raged, the expectation of co-ethnic refugee flows induced policymakers in Armenia and Azerbaijan to institute extensive, liberal policies for FDPs (Makaryan and Chobanyan, 2014).

H_2: Countries enact more liberal asylum policies when co-ethnics of their political elites are discriminated against abroad.

Second, we argue that countries should be more likely to pursue liberal asylum policies when they are both reliant on external economic assistance *and* repressive. It is these countries that are: (1) vulnerable to pressure from developed countries that are keen to deflect refugee flows; and (2) which stand to curry international favor by adopting the liberal asylum policies Western actors desire.

Developed countries increasingly seek to restrict the flow of refugees from South to North. It follows that those countries have an interest in promoting more liberal policy regimes in developing countries, especially those proximate to on-going conflicts. Foreign aid is critical to many developing countries, and it can therefore act as a lever that rich countries use to pressure developing countries to reform their asylum and refugee policies, offering external assistance to offset (and sometimes more than offset) the costs of hosting large displaced populations (Loescher, 1996; Crisp, 2010).[5] Indeed, Bubb, Kremer and Levine (2011) show theoretically that foreign assistance is an efficient so-

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[5]For example, in 2018, the U.S. provided Uganda, which hosts over one million refugees from neighboring countries, a total of $139 million, and the E.U. an additional $38 million, for Uganda's refugee response. Bueno de Mesquita and Smith (2009) describe transactional aid for policy concessions more broadly.

lution to the negative externalities of policy restrictions in the West, and thus Western actors should compensate developing countries for resettling forced migrants. There is mounting empirical evidence that such a dynamic is unfolding (Bermeo and Leblang, 2015; Gamso and Yuldashev, 2018). A number of donor countries now explicitly tie external assistance packages to cooperative agreements with developing countries over migration management (Boswell, 2003; Adepoju, van Noorloos and Zoomers, 2010). Correspondingly, several developing countries such as Libya (Tsourapas, 2017) and Lebanon (Tsourapas, 2019) are known to engage in such "migration diplomacy."

However, not all aid recipient countries are equally vulnerable to donor pressure (Bermeo, 2016). For example, democratizing countries will likely push back against pressure from donor countries if liberalizing refugee policies would be unpopular and thus politically destabilizing. By contrast, repressive countries known for abusing human rights are more likely to be receptive. For one, autocrats are better shielded from public opinion. Second, for repressive countries that depend on external assistance, liberalizing asylum policy may be a strategic move to deflect attention from ongoing abuses by demonstrating a (symbolic) commitment to liberal international norms. Natter (2018, p.14) explains the logic of this behavior: "liberal norm adherence might play out more strongly in autocratic systems that seek to portray themselves as progressive countries on the international scene." More broadly, FitzGerald and Cook-Martin (2014, p.21) explain, "One of the purposes of immigration and emigration policies is to make a country appear more modern and civilized. Migration policies are dramaturgical acts aimed at national and world audiences."

The benefits of strategic policy liberalization for repressive regimes, then, are threefold. First, by building international credibility through asylum policy liberalization, repressive regimes can generate goodwill, which in turn serves as political cover for lingering abuses. Second, liberalization makes repressive regimes seem like pliant partners, thereby helping facilitate durable relationships with Western donors. Third, repressive regimes rely on patronage to remain in power. Cooperation with the West on asylum policy can be a lucrative source of external revenue that can be used to sustain patronage networks,

as in Gaddafi's Libya (Tsourapas, 2017). Kenya's liberalization under Daniel arap Moi in the 1990s and Guinea's liberalization under Lansana Conté are also illustrative. These leaders pursued asylum policy liberalization to garner sustained international economic assistance while engaging in continued domestic repression (Milner, 2009, p.181).

H_3: **Highly repressive developing countries enact more liberal asylum policies as they receive more external economic assistance.**

Finally, turning from liberalization to policy restriction, we expect the likelihood of policy restriction to increase with a country's wealth. Canonical neoclassical economic models point to a positive relationship between cross-border income inequality and increased migration (Hanson and Spilimbergo, 1999; Hanson and McIntosh, 2016). The logic of the argument is that wage and price differentials between countries incentivize individuals in low-wage countries to migrate to high-wage target countries to reap the benefits of enhanced economic opportunity. If the costs of flight are lower than the expected returns, individuals will migrate. This logic is precisely why countries in the Global North pursue external assistance as a strategy to deter migration (Bermeo and Leblang, 2015). The aim is to use aid to foster development and thereby reduce the cross-border income inequalities that drive migration. This fact also explains why border fortification, one blunt form of potential migration control, is associated with relative wealth differentials between countries (Carter and Poast, 2017). For policymakers and citizens in wealthier destination countries, expectations of increased FDP flows translate into fears that refugees will disrupt labor markets and strain welfare regimes (Facchini and Mayda, 2008). There exists extensive evidence from the developed world that relative wealth is associated with restrictive migration policymaking (Boehmer and Peña, 2012; Boucher and Gest, 2018). We have no reason to assume that this evidence is not relevant to the Global South as well *ceteris paribus*.

H_4: **Wealthier developing countries enact more restrictive asylum policies.**

Measuring Asylum Policy in the Developing World

To test our hypotheses regarding the determinants of asylum policy reforms in the developing world, we construct an original dataset of all national laws pertinent to forcefully displaced populations in a sample of 92 African, Middle Eastern, and South Asian countries between 1951 and 2017. In total, the Developing World Refugee and Asylum Policy (DWRAP) dataset includes 229 unique, national-level migration laws.[6] Construction of DWRAP expands the geographic and temporal scope of asylum policy indices considerably. In Table 1, we outline the temporal and geographic coverage of existing migration policy datasets compared to DWRAP, demonstrating the extent to which existing data are OECD-centric. Because there has been no systematic mapping of domestic laws and policies on forced displacement in the developing world, the majority of the world's asylum-seekers and refugees reside in developing countries that are excluded from existing dataset coverage. DWRAP thus represents the most expansive coding of asylum and refugee policies in the developing world to date.

We conceptualize refugee and asylum policy as a combination of policy provisions regulating five core fields, or dimensions: (1) **access**: the ease of entrance and security of status; (2) **services**: provision of public services and welfare; (3) **livelihoods**: the ability to work and own property; (4) **movement**: encampment policies; and (5) **participation**: citizenship and political rights. Consequently, for each law we code 54 provisions across the five policy fields—access, services, livelihoods, movement, and participation—outlined above. To allow for fine-grained aggregation, we categorize the five policy fields into 14 policy strands, including: status security, control measures, family unity, legal recourse, education, aid, healthcare, property, land, employment, settlement policy, document access, citizenship, and political rights. We outline our policy categorization in

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[6]A list of these laws can be found in Table S.1 of the supplementary materials. Focusing on national laws, DWRAP is a de jure measure. The data complements ongoing efforts like the DARA Refugee Response Index, which will capture aspects of countries' de facto environments.

Table 1: Coverage of Well-Cited Migration Policy Indices

Index	Years Covered	Asylum Specific	Total	Europe	North Am.	Latin Am.	Middle East	Asia (Non-ME)	Africa	Oceania
Waldrauch and Hofinger (1997)	1995	No	8	8	0	0	0	0	0	0
Mayda (2010)	1980-1995	No	14	10	2	0	0	1	0	1
Ortega and Peri (2009, 2013)	1980-2006	Yes	14	10	2	0	0	1	0	1
Peters (2015, 2017)	1783-2010	Yes	19	5	2	2	2	5	1	2
Hatton (2009, 2016)	1997-2012	Yes	19	16	2	0	0	0	0	1
Beine et al. (2016)	1960-2016	Yes	26	21	2	0	0	1	0	2
Koopmans and Michalowski (2017)	1980-2008	No	29	16	2	2	3	2	2	2
Helbling et al. (2017)	1980-2010	Yes	33	23	3	1	2	2	0	2
MPG (2015)	2004-2014	Yes	38	31	2	0	1	2	0	2
de Haas, Natter and Vezzoli (2015)	1945-2014	Yes	45	28	3	3	2	5	2	2
DWRAP	**1951-2017**	Yes	**92**	**1**	**0**	**0**	**16**	**17**	**58**	**0**

Note: Asylum specific indicates whether or not the index includes indicators specific to asylum and refugee policy. Hatton (2009, 2016)'s data represent the only other index we are aware of that is dedicated solely to mapping asylum and refugee policy. The year range listed for that data corresponds to Hatton (2016). Other datasets in Table 1 capture asylum policy as one component in a broader tracking of immigration policy. Statistics for Beine et al. (2016) refer to planned coverage, but the dataset is still in development. Though the year range for de Haas, Natter and Vezzoli (2015) is actually longer for some countries, the dataset creators note that coding is most reliable in the post-1945 period. The single European country included in DWRAP is Cyprus, which is included because it falls under the UN geo-scheme Western Asia region.

Table 2. The 54 policy provisions we code were selected after an exhaustive reading of extant migration policy coding guidelines employed in other key datasets, as well as UN High Commissioner for Refugees (UNHCR) reports on asylum policy. More details about coding procedures are provided in the appendix.[7] Moreover, the empirical tests presented below suggest our policy indices have construct validity by showing they associate with observed variables in ways consistent with theoretical expectations (Goodman, 2015).

Our data cover *de jure* policies on asylum and forced migration. Our choice to focus on de jure policies offers a number of theoretical and empirical advantages, though we do not claim that our policy coding captures the de facto asylum environment. First, de jure policies offer a more objective measure because coding is based on legal texts, rather than

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[7]The codebook is provided in section S.2. Figure S.3 shows that components of each strand and field are highly correlated, lending confidence to the theoretically-motivated categorization scheme we employ. Principal component analyses give a substantively similar decomposition of the variables (Table S.4).

Table 2: DWRAP Policy Coding

Policy Strands	Access				Services			Livelihoods			Movement		Participation	
	Status	Control	Family	Recourse	Education	Aid	Health	Property	Land	Employment	Settlement	Documents	Citizenship	Rights
Variables	Accept asylum-Seekers	No penalty for unlawful entry	Extend status to family	Court access	Primary education	Aid access	Healthcare access	Transfer property	Provided land	Employment rights	Free movement	Document access	Citizenship path	Political participation
	Non-refoulement	Security checks	Family reunion	Reasoned decision	Post-primary education	Aid type	Healthcare costs	Asset seizure	Land lease	Self-employment	Conditional movement	Document cost	Years for citizenship	Association rights
	Exclusion categories		Personal status rights	Appeal denial	Affirmative action	Social security	Health-based entry	Asset compensation		Professional employment	Encampment		Citizenship by marriage	
	Cessation categories				Religious education		Health restrictions	Own moveable property		Employment permit			Citizenship by birth	
	Remain if status pending				Language training			Own fixed property		Employment restrictions			Citizenship for	
	Right to remain				Vocational training			Intellectual property		Taxation			unaccompanied minors	
								Leasing rights						

subjective judgments about policy enforcement.[8] Second, the international community can advocate adoption of certain policies, but enforcing implementation is much more difficult. By studying de jure policies we can show how policies, once implemented, create their own constituencies advocating for implementation. For example, when Uganda mandated that refugee children have access to health and education, local communities in proximity to settlements pushed expansion of schools and clinics that serve both refugee and host populations. Third, charting the de jure environment in countries is important for understanding whether gaps, when they emerge, are a product of deficient policy frameworks or deficient enforcement of existing policies. Finally, de jure policies must not matter as a pull factor if de jure policies are meaningless in the Global South. By showing de jure policies are significant as a pull factor, we illustrate how one need not assume full implementation for policies to matter in practice.

In developing DWRAP, we selected countries for inclusion according to their UN geo-scheme region. Specifically, we selected all countries in the following regions: Eastern Africa, Middle Africa, Northern Africa, Southern Africa, Western Africa, Western Asia, Central Asia, and Southern Asia.[9] These regions were selected because they are disproportionately underrepresented in existing migration policy indices, and because countries in these regions are large origin and destination states for externally displaced populations. In 2017, about 70% of all 2.1 million asylum-seekers originated, and 35% of all asylum-seekers (roughly one million) sought refuge in DWRAP-covered countries; likewise, DWRAP countries produced 87% and hosted 81% of the world's refugees.[10]

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[8]It is easier to code objective legal provisions than other de facto phenomena of interest like, say, democracy.

[9]Expanding coverage to Latin American and Southeast Asian countries is left for future research.

[10]Calculations are based on the UNHCR's Population Statistics database. These numbers differ slightly from the 86% statistic quoted above and cited in the United Nations High Commissioner for Refugees (2016)'s Global Trends report, which combined asylum-seeker and refugee stocks. The total number of asylum-seekers to DWRAP countries dropped slightly in 2016, when flows to Europe, mostly of migrants from Syria and Iraq, peaked.

Temporally, we use 1951 as our start date because it marks the signing of the landmark Convention Relating to the Status of Refugees.[11] Prior to World War II, countries generally did not adopt formal refugee and asylum policies, and the annunciation of the 1951 Convention was a watershed moment in the diffusion of national and international asylum policy. Since coding back 66 years raises measurement challenges, we evaluate the texts of laws individually, going systematically through national legal frameworks to code along the 54 provisions outlined in Table 2. This approach facilitates reliable coding of historical policies.[12] By contrast, most existing migration policy indices rely on expert surveys. While this has the benefit of enabling an assessment of *de jure* policy provisions, it also severely limits how far one can code back in time.[13]

The corpus of laws and policies pertinent to forced migration was identified chiefly using UNHCR submissions to the Universal Periodic Review (UPR), a mandated, cyclical review process of UN members states organized by the Office of the High Commissioner for Human Rights. Individual countries, UN agencies, and third-party stakeholders may submit publicly available reports on human rights practices in individual countries under review to a Compilation Report. In practice, the UNHCR submits to the UPR process for virtually every country in a given cycle. UNHCR submissions detail the evolution of a state's forced migration policies, or lack thereof, as well as states' international legal obligations to forced migrants, and details of states' *de facto* protection environments, including instances of refoulement and other violations of migrants' rights. We use legal instruments referenced in UNHCR submissions to identify key laws and policies in individual states.[14] We supplement information from UNHCR submissions with

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High rejection rates across Europe mean many asylum-seekers who seek passage there ultimately end up in countries like Lebanon and Turkey, which are included in DWRAP.

[11]Countries that achieved independence post-1951 enter the dataset in the first year of independence.

[12]Reliability checks confirm a high degree of inter-coder agreement.

[13]See Hatton (2009, 2016), Peters (2015, 2017) and Beine et al. (2016) for other migration policy coding schemes that do not rely on expert surveys.

[14]Sample excerpts from UNHCR submissions to the Universal Periodic Review are avail-

information from the UNHCR's Refworld database,[15] the International Labour Organisation's NATLEX database,[16] the International Organisation for Migration's Migration Law Database,[17] the UN Office on Drugs and Crime's SHERLOC database,[18] the Law Library of Congress, and the Refugee Law Reader.[19] In total, these resources contain information on more than 100,000 national laws and policies, and enable us to capture the full corpus of domestic laws on forced migration over time.[20] Using these sources, we are able to locate full texts of more than 90% of the national laws in our dataset.

We use a straightforward aggregation procedure to transform the policy coding into a scale of asylum policy liberality. Specifically, we use a series of summary indices to aggregate from individual policy provisions to policy strands, policy strands to policy fields, and policy fields to policies. Following Anderson (2008), each summary index is the mean of standardized outcomes weighted by the inverse of the covariance matrix, which maximizes the information captured in the index. To test the robustness of our results to the aggregation schema, we also show that results are substantively similar when the aggregated indices are the equally-weighted mean of standardized outcomes. Each index is further scaled to range from 0 to 1. By constructing index scores for policy strands, policy fields, and policies, we ensure comparability of policy regimes within *and* across countries over time.

Two Stylized Facts about Asylum Policy in the Global South

Drawing on this new data, we present two stylized facts about asylum policies in developing countries. First, there is much diversity in asylum policy liberality, as

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able in section S.5 of the appendix. Importantly, UPR submissions typically describe a country's historical and current policies, facilitating our coding back to 1951.

[15]Available at https://bit.ly/2HVTYzz.

[16]Available at https://bit.ly/2GruNCJ.

[17]Available at https://bit.ly/2MU4mqk.

[18]Available at https://bit.ly/2t8g3AP.

[19]Available at https://bit.ly/2Gt0ITl.

[20]We code legislative texts, but not court rulings and administrative regulations, as the latter are not systematically tracked.

shown in Figure 1, which plots asylum policy scores from DWRAP in 2017, the last year of our dataset. This variability—which cannot be simply explained away by regional clustering—underscores the importance of our theory-building exercise.

Figure 1: Asylum Policy in the Developing World in 2017

Note: Asylum policy scores range from 0 (restrictive) to 1 (liberal). Darker shades indicate more liberal asylum policy scores.

Second, our data suggest that developing countries have been gradually liberalizing their asylum and refugees policies, while developed countries have been moving in more restrictive directions (Meyers, 2002; Hatton, 2016; Beine et al., 2016; Rayp, Ruyssen and Standaert, 2017). Figure 2 depicts the sample average increase in our asylum policy measure over time.[21] Policy liberalization has been especially pronounced with respect to *access* and *movement* domains. Moves away from encampment and toward free movement and enhanced access to travel and identification documents are particularly important drivers of this trend. By comparison, liberalization of policy on refugee livelihoods and

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[21] Policy trends by region are presented in Figures S.6 through S.8 of the appendix.

participation rights has been more slight, on average. These policy dimensions, including rights to work and own property, citizenship rights, and rights to political participation are critical for refugee integration, but also politically sensitive, often sparking native opposition (Gathmann and Keller, 2018).

Importantly, the liberalizing trend in asylum policy across the Global South is taking place at a time that refugee policies are becoming increasingly restrictive (Figure 3) in OECD countries (Peters, 2015; Hatton, 2009, 2016; Rayp, Ruyssen and Standaert, 2017; Boucher and Gest, 2018), especially since 2001 (Rudolph, 2003). Divergent asylum policy trajectories across the Global North and Global South reinforce our study's assumption that a different set of analyses is needed to understand migration policymaking in the developing world.

Empirical Strategy: Asylum Policy Reforms

To identify the correlates of asylum and refugee policy change in the developing world, we leverage our fine-grained asylum policy measure from DWRAP. Recall, our theoretical arguments pertain to the circumstances under which developing countries reform their asylum policies. We thus focus on when countries substantially liberalize or restrict their refugee and asylum policies. This focus also reflects the fact that asylum policies tend to change suddenly, not gradually—in fact, no change occurs in most country-years. In our primary analyses of policy determinants, therefore, the dependent variable is an indicator for policy change.

We define a policy reform as a one standard deviation change in a country's policy score from year *t-1* to year *t*.[22] We focus on one standard deviation changes because these reflect substantial, substantive modifications to countries' asylum policy environment. Changes of smaller magnitude typically capture more limited legal and procedural modifications to policy frameworks, rather than substantive changes in policies themselves.[23] Specifically, we use three binary dependent variables in our primary models:
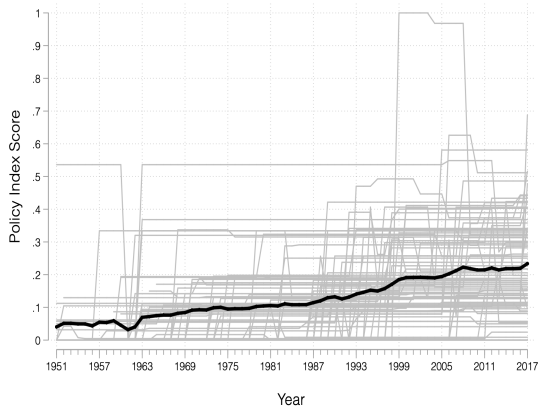
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[22]One standard deviation is calculated from the entire dataset across time.
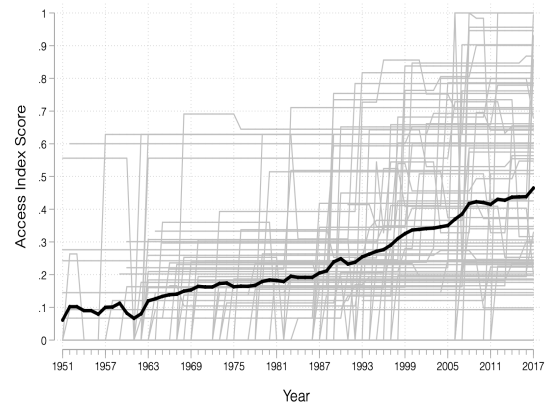
[23]Policy trends by region are presented in Figures S.6 through S.8 of the appendix.

Figure 2: Asylum Policy in the Developing World Over Time
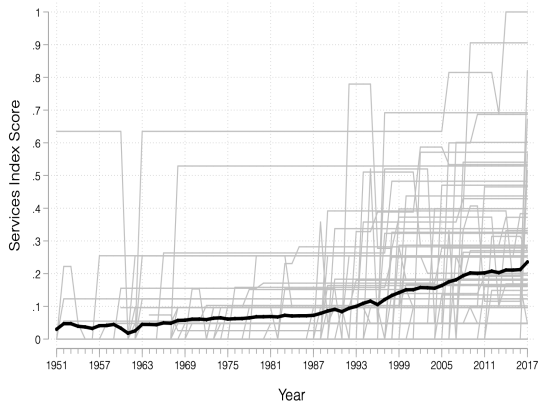
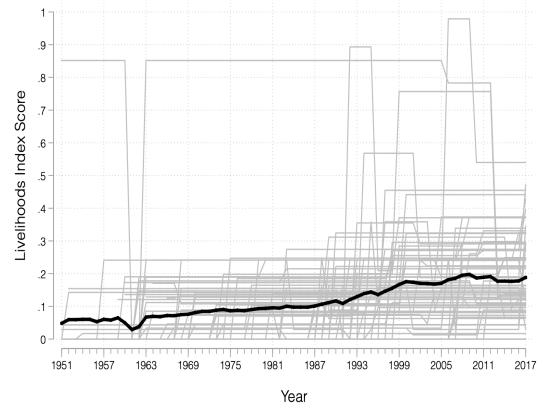(a) Policy Index Over Time

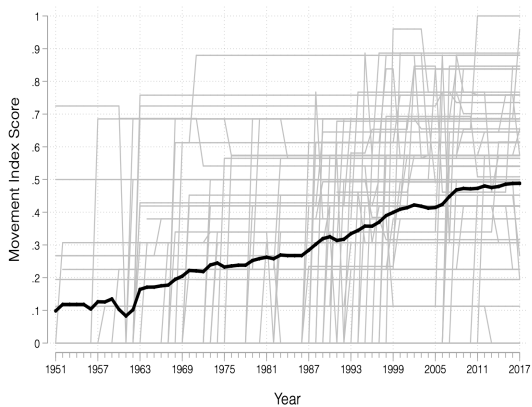(b) Access Index Over Time
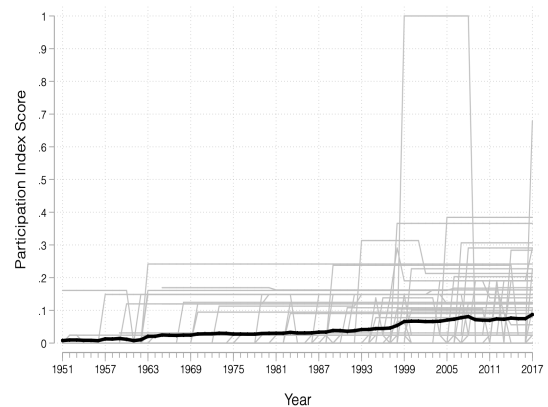

(c) Services Index Over Time

(d) Livelihoods Index Over Time
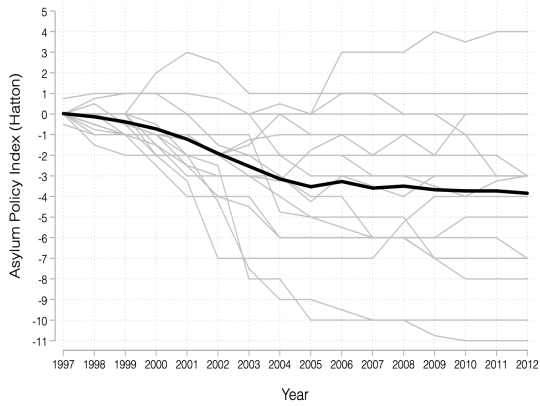

(e) Movement Index Over Time

(f) Participation Index Over Time

Note: Light gray lines represent individual country scores over time, and the thick black line captures the average index score for all DWRAP countries over time.

Figure 3: Asylum Policy in the Developed World Over Time

(a) Hatton's Policy Index Over Time

(b) Peters's Border Regulation Index Over Time

(c) Hatton's Access Index Over Time

(d) Hatton's Processing Index Over Time
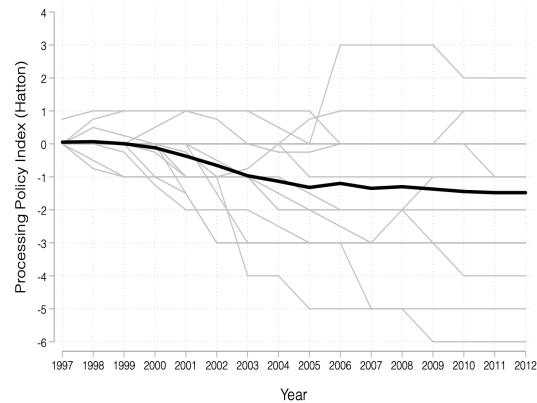
(e) Hatton's Welfare Index Over Time
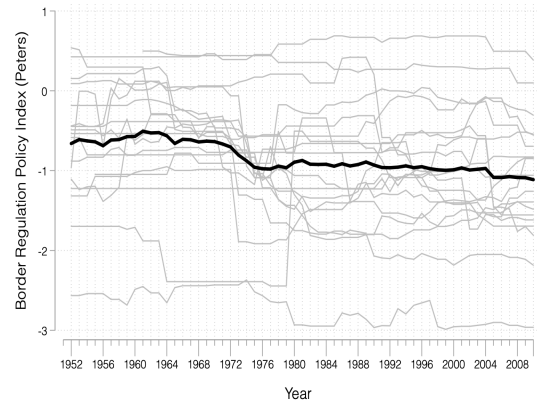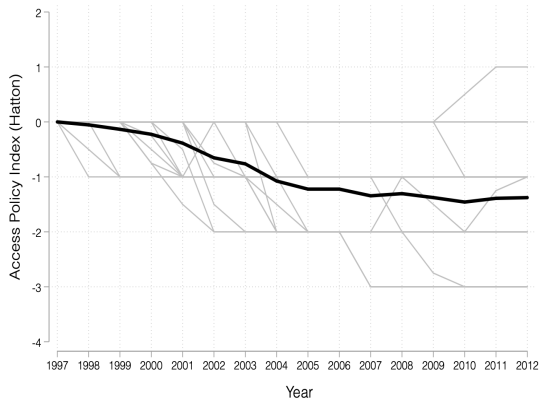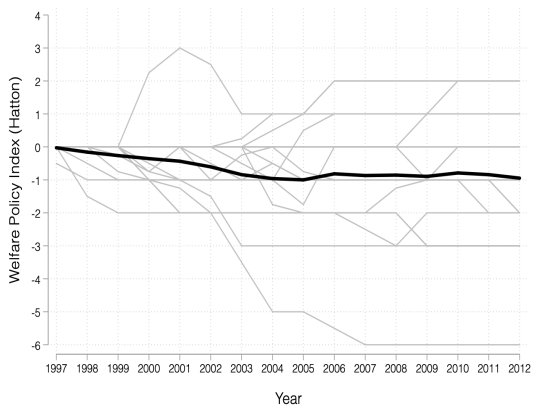
Note: Light gray lines represent individual country scores over time, and the thick black line captures the average index score for all countries in the respective sample over time. All indices are scaled so higher values reflect greater liberality and lower values reflect greater restrictiveness. Hatton (2009, 2016)'s and Peters (2015, 2017)'s indices are scaled differently, so index scores are not directly comparable, but broad trends toward restriction are evident.

change, which refers to a one standard deviation change in a country's asylum policy score; *liberalization*, which refers to a one standard deviation increase in a country's asylum policy score; and *restriction*, which refers to a one standard deviation reduction in a country's asylum policy score. In total, we record 71 changes of at least one standard deviation, including 62 liberalizations and 9 restrictions, between 1951 to 2017.[24] We plot all policy changes of at least one standard deviation in the top panel of Figure 4, and the number of one standard deviation changes over time in Figure S.13 of the appendix. All such changes are described in Table S.14. More than half of all asylum policy changes of at least one-quarter of a standard deviation (71 of 135 cases) are changes of at least one standard deviation. These reforms are concentrated after the end of the Cold War, a period which was characterized by an increased incidence of civil war, and consequently, a dramatic increase in the global stock of refugees (bottom panel of Figure 4).

Variable Description

We consider several independent variables corresponding to hypotheses 1 through 4. To test our expectation about the relationship between conflict and policy change, we use data from the UCDP Armed Conflict Dataset (Gleditsch et al., 2002; Pettersson, Högbladh and Öberg, 2019). Usefully for our purposes, this dataset disaggregates armed conflicts by intensity measured in battle deaths, which permits us to test whether the mere occurrence of conflict in a country's neighborhood is associated with asylum policy changes, or whether only intense conflicts (which are more likely to generate refugee flight) drive asylum policy changes. We use a binary measure of intense, proximate civil wars in our main analyses, which takes a value of 1 if a country has a contiguous neighbor experiencing a civil war causing 1000 or more battle deaths in the prior calendar year

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[24]Scholars of international relations frequently study rare but important events like coups and civil wars. We record 71 asylum policy changes of at least one standard deviation. By comparison, there were 174 civil wars from 1951 to 2016. Government and rebel victories in civil wars are even rarer, with just 46 incumbent wins and 40 rebel wins since 1951 (Sambanis and Schulhofer-Wohl, 2019).

Figure 4: One Standard Deviation Policy Changes Over Time (Top Panel) and Civil Wars and Forced Migrant Stocks Over Time (Bottom Panel)

Note: The top panel shows all +/- 1 standard deviation policy changes over time. Black dots denote policy changes of at least one standard deviation. Dashed lines mark one standard deviation thresholds. The difference in policy score represents a country's policy score in year t minus its policy score in year $t-1$. The bottom panel shows the global forced migrant stock and number of civil wars over time. The black line denotes the global forced migrant stock (refugees + asylum seekers) from the UNHCR Population Statistics database. The dashed, gray line denotes the number of civil wars ongoing worldwide.

21

and 0 otherwise.

Hypothesis 2 refers to transnational ethnic kin. Data on politically-relevant ethnic groups, their access to state power, and their transnational ties come from the Ethnic Power Relations (EPR) dataset (Vogt et al., 2015). Our measure of transnational ethnic power disparity is a binary indicator. Following EPR, we define politically-elite ethnic groups as those that enjoy a status of at least the senior partner level. These groups exert direct influence on policymaking processes by virtue of the privileged positions that group members hold in government. Politically-excluded ethnic groups are defined as those that are powerless or discriminated against. Excluded groups face tacit or overt barriers to accessing national political institutions. Combining these definitions, we expect policy liberalization when transnational co-ethnics of a country's political elites are excluded abroad. Transnational kin tend to be regionally concentrated, and status differentials are most salient for groups in close proximity (Cederman, Gleditsch and Buhaug, 2013). As such, our indicator takes a value of 1 when a country's political elites (ethnic groups at the senior partner level or higher) have politically-excluded transnational kin (ethnic groups that are powerless or discriminated against) in another country in the region; and 0 otherwise.[25]

Our third hypothesis concerns repressive countries reliant on foreign economic assistance. We expect, all else equal, that these countries are more likely to liberalize their asylum policies given the strategic benefits this confers—namely, political cover. To measure repression, we use Fariss (2019)'s latent measure of a country's human rights score, reverse-scaled so higher values indicate greater repression.[26] We measure aid dependence by taking the net value of bilateral aid from donors on the Development Assistance Committee (DAC) of the OECD, divided by a country's GDP.[27] Because this measure is

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[25]We define regions by 1500 kilometers of inter-capital distance, but we show in Figure S.27 that this choice is not consequential for the results.

[26]Results are similar when we use a coarsened version of the index split into three categories along the 33rd and 66th percentiles.

[27]Data on aid commitments would be preferable, but it is unavailable for most country-years in our sample. Our measure is a reasonable proxy because past aid is highly correlated

skewed, we transform it by taking the inverse hyperbolic sine (IHS).

Hypothesis 4 posits that wealthier countries are more likely to restrict asylum policy. We measure wealth using purchasing power parity (PPP)-adjusted gross domestic product (GDP) per capita. This variable comes from the Penn World Tables (Feenstra, Inklaar and Timmer, 2015), and is IHS-transformed to smooth its distribution. Apart from these key variables of interest, our core specification includes covariates designed to capture factors that past work has shown to be relevant for migration policymaking. These include a country's population, democracy score (Hollifield, 1992; Joppke, 1998), transnational terror incidents (Rudolph, 2003), and trade-to-GDP ratio (Peters, 2017). Covariates are lagged one year to mitigate temporal confounding. To conserve space, we present descriptive statistics and describe our control variables in greater detail in Tables S.15 and S.16.[28]

Estimation

Because we are interested in modeling when developing countries reform their asylum policies, our primary estimation is a series of hazard models (also referred to as survival, duration, or event history models).[29] Hazard models estimate the probability that a unit "fails"—that is, experiences the event of interest. The "hazard" in this class of estimators is the conditional probability of failure.

Repeated failures are a feature of the process we model: some countries reform their asylum policies several times over the course of the study period. For instance, Burkina Faso has made substantial liberalizing changes in its asylum policy framework in both 1988 and 2008. More broadly, repeated failures—in this case, asylum policy changes of at least one standard deviation—account for about quarter (17 of 71) of the changes in our data.

In traditional hazard modeling approaches, event times are assumed to be conditionally independent. This assumption is unlikely to hold in our framework for two

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with future aid.

[28]Figure S.17 suggests collinearity is not an issue in our preferred specifications.

[29]Our core results are robust to alternative estimators, including OLS (Table S.31).

reasons. First, event dependence means the risk of failure is correlated within units. The clustering of terminations among countries mean previous failures raise the risk of future failures. For example, conflict trends in Kenya's neighborhood, including recurrent waves of forced migrant flows from Somalia, in tandem with Kenya's fraught political relationship with its Somali minority, have generated repeated impetuses for policy change. Second, there is likely to exist unobserved heterogeneity across countries with respect to failure susceptibility. Adding covariates accounts for some of this heterogeneity, but it is unlikely that we can control for all factors that affect the risk of asylum policy change, given the empirical complexity of migration policymaking. Further, if unit heterogeneity in the propensity for policy change is also correlated with the likelihood of experiencing armed conflicts in the neighborhood or receiving external economic assistance, our estimates will be biased.

Given the dual threats of event dependence and unobserved unit heterogeneity, we follow Box-Steffensmeier and De Boef (2006); Box-Steffensmeier, De Boef and Joyce (2007); Box-Steffensmeier, Linn and Smidt (2014), and employ a conditional frailty gap-time Cox model. This model is conditional because it stratifies the risk set by the number of failures a unit has experienced. By allowing the baseline hazard to vary by the number of failures, stratification helps control for event dependence. As in Box-Steffensmeier, De Boef and Joyce (2007), we use gamma-distributed frailties to account for unobserved heterogeneity in each country's propensity to fail.[30] This shared frailty approach allows for partial pooling across countries while accounting for heterogeneity. Frailties are thus equivalent to random effects in other modeling contexts. Our models are estimated in gap-time rather than elapsed time because we are substantively interested in the time since a country experienced the last event, rather than the time since a country first entered the risk set.

Because we employ the conditional frailty gap-time *Cox* estimator in our primary models, we make no additional parametric assumptions about the shape of the hazard function. In this sense, the semi-parametric Cox approach is more flexible than parametric

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[30] Variance of the frailties is estimated according to an expectation-maximization algorithm.

hazard models (Box-Steffensmeier, Linn and Smidt, 2014). In parametric approaches, the baseline hazard is assumed to follow a specific distribution (e.g. exponential or Weibull). In contrast, Cox models do not directly model the baseline hazard because they do not specify a parametric distribution of the hazard. While parametric approaches directly model the hazard ratio and allow for out-of-sample prediction, coefficient estimates are dependent on a correctly-chosen distribution of the hazard. We opt for the Cox approach in our primary models because we are not concerned with out-of-sample prediction so much as accurate estimation. Our choice of estimator follows a number of other prominent analyses, including Crabtree, Darmofal and Kern (2015) and Strezhnev (2017).

The hazards in our framework can be written as follows (Box-Steffensmeier, De Boef and Joyce, 2007, p.242), where (1) corresponds to H1 and (2) corresponds to H2 through H4:

$$\lambda_{u,s}(t) = \lambda_{0s}(t - t_{s-1})e^{\kappa(Intense, ProximateCivilConflict_{u,s}) + \theta(X_{u,s}) + \gamma_u} \tag{1}$$

$$\lambda_{u,s}(t) = \lambda_{0s}(t - t_{s-1})e^{\alpha(KinStatus_{u,s}) + \beta(Aid_{u,s} \cdot Repression_{u,s}) + \delta(GDP/Capita_{u,s}) + \theta(X_{u,s}) + \gamma_u} \tag{2}$$

and where u indexes countries and s denotes the event number, which stratifies the risk set. λ_{0s} is the baseline hazard rate and $(t - t_{s-1})$ specifies a gap time formulation, where the hazard is the risk of failure for event s since the occurrence of event $s - 1$. κ gives the ratio of the instantaneous probability of failure when an intense civil conflict is occurring in country u's neighborhood divided by the instantaneous probability of failure when no intense civil conflict is occurring in country u's neighborhood, α gives the ratio of the instantaneous probability of failure when country u's political elites have excluded kin abroad divided by the instantaneous probability of failure when country u's political elites do not have excluded kin abroad, β gives the effect of development aid as repression increases, and δ gives the effect of GDP/capita. θ are estimates from a vector of covariates, and γ_u are gamma-distributed, unit-specific frailty terms. In all models, we cluster standard errors by country and use Efron's method for ties. For simplicity, we report standardized coefficients rather than hazard ratios.

Qualitative Data

Our empirical analysis has also benefited from insights gleaned from 126 qualitative, semi-structured interviews and focus group discussions with refugees, UN and government officials, and NGO representatives conducted in Uganda in summer of 2017. Details of our interviews are provided in Table S.18 and Figure S.19 of the appendix. We selected Uganda for our fieldwork because it hosts a large forced migrant population—as of 2016 it hosted the fifth-most forced migrants in the world in terms of total stock and the eighth-most forced migrants in the world on a per capita basis—and because its asylum policy drastically liberalized in the past decade.[31] The evolution of Uganda's refugee and asylum policy environment is depicted in Figure 5. Between 2006 and 2017, Uganda's asylum policy score increased 538% and its annual number of forced migrant arrivals increased 2811%. This dramatic policy liberalization reflected the passage of Uganda's 2006 Refugees Act and 2010 Refugees Regulations, which replaced the draconian Control of Aliens Refugees Act of 1960. These asylum and refugee policies are widely regarded as some of the most liberal in the developing world (World Bank, 2016), affording refugees rights such as free movement, education, employment, property ownership, and association, as well as plots of land for cultivation. Evidence from our qualitative interviews are interspersed throughout, and provide context for our quantitative results.

Civil Conflict and Asylum Policy Change

Turning to our empirical analysis, we find robust support for hypothesis 1. Armed conflicts in neighboring countries are the primary impetus for asylum policy change in the developing world. We argue above that such conflicts shift expectations of FDP inflows, which in turn, induce prospective host countries to reassess (and at times reform) their asylum policies. As a preliminary test, contingency tables presented in Tables S.20 through S.22 of the appendix indicate that policy changes occur disproportionately when a country's neighbors are experiencing civil wars. The association is especially striking

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[31]Statistics based on calculations from UNHCR's Population Statistics Database.

Figure 5: Forced Migration and Asylum Policy in Uganda
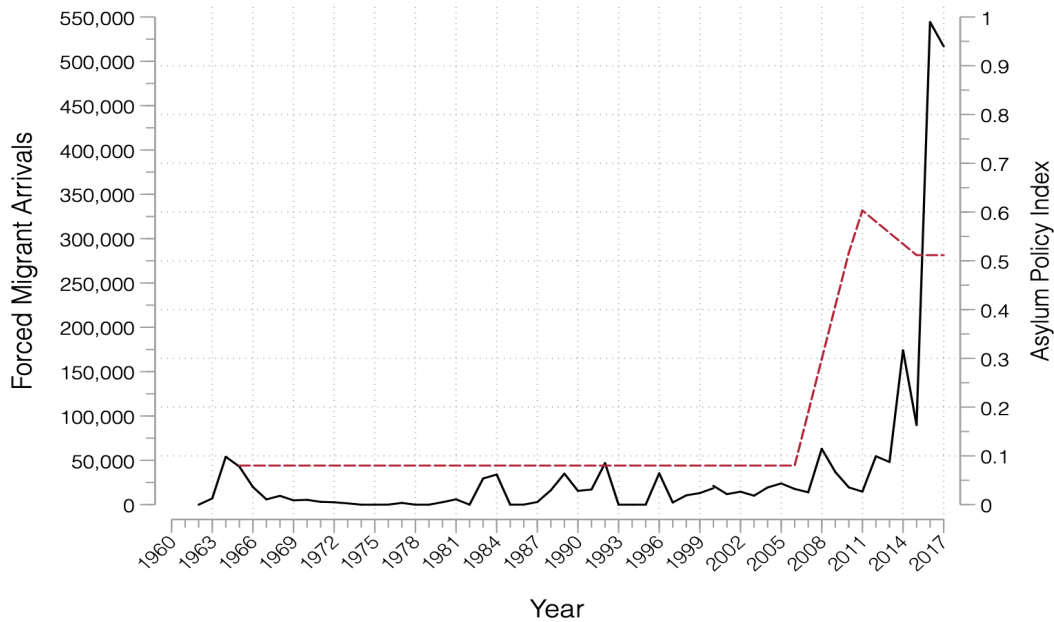
Note: The solid black line represents forced migrant arrivals—prima facie refugee arrivals (Fearon and Shaver, 2019) plus asylum applications—to Uganda over time. Data on asylum applications are only available from 2000, so the black line only captures prima facie refugee arrivals between 1960 and 1999. The dashed line captures the five-year lagged moving average of Uganda's policy index score.

when, in year *t-1*, a neighboring country is experiencing an intense civil war, defined as those causing at least 1000 battle deaths in the prior calendar year. Such episodes account for nearly 40% of all one standard deviation policy changes.

Table 3 provides a more formal test of hypothesis 1. In columns 1 through 7 we define a country's neighborhood in terms of contiguity, so coefficients refer to the occurrence of armed conflict in any of a state's territorial neighbors. In column 8 we define a country's neighborhood in terms of 1500 kilometers of inter-capital distance, so coefficients refer to the occurrence of armed conflict in the broader set of countries surrounding a state; this column ensures our core result is robust to how we define a country's neighborhood. The main dependent variable (used in columns 1, 2, 3, and 8) is an indicator for one standard deviation policy changes. Column 1 estimates a sparse model including only the coefficient of interest, our conflict indicator, and country-level frailty terms (i.e. random effects). In column 2 we introduce additional controls for political and socioe-

conomic conditions in a country.[32] Columns 3, 5, and 7 use the equally-weighting index sub-components to ensure our results are robust to our aggregation scheme. To verify that our core finding is robust to the change threshold we choose, in columns 4 and 5 we look at one-half standard deviation policy changes, and in columns 6 and 7 we look at one-and-one-half standard deviation policy changes as the dependent variable.

Across all models, we find that countries are more likely to substantially reform their asylum policies when intense civil wars are occurring in a neighboring state. Exponentiating the large, statistically significant coefficient from column 2, our best-fitting model, suggests that when one of a country's neighbors is experiencing an intense civil war, the target country is approximately 402% more likely to change its asylum policy by at least one standard deviation (because $e^{1.614} \approx 5.023$). The minimum estimated coefficient from column 8 still suggests that when one of a country's neighbors is experiencing an intense civil war, the target country is approximately 53% more likely to alter its asylum policy by at least one standard deviation. This finding comports with theoretical models (Czaika, 2009) that assume that expectations of increased future flows are the principal driver of asylum policy change. This finding also helps contextualize the importance of Fearon and Shaver (2019)'s conclusion that battle deaths—and expectations thereof—drive refugee outflows during civil wars. As a robustness check, in Figure S.23 we consider the relationship between neighborhood armed conflict and policy change at different levels of civil conflict intensity. The policy change-inducing effects of neighborhood armed conflicts are specific to intense civil war episodes compared with low-intensity conflicts. This intuitive finding lends confidence to our specification, and suggests that civil war battle deaths drive *both* refugee outflows (Fearon and Shaver, 2019) and asylum policy changes.

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[32]We include the following covariates as controls: elite kin discrimination, the ratio of DAC aid to GDP, repression, GDP per capita, population, democracy score, civil war in the policymaking state, transnational terror attacks in the policymaking state, and trade-to-GDP ratio.

Table 3: Conditional Frailty Models of Policy Change

	Neighbor Defined by Contiguity							Neighbor Defined by 1500 km Inter-capital Distance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
DV Change Threshold	+/- 1 SD	+/- 1 SD	+/- 1 SD	+/- 0.5 SD	+/- 0.5 SD	+/- 1.5 SD	+/- 1.5 SD	+/- 1 SD
Civil Conflict in Neighbor (1000+ Battle Deaths in Prior Year)	0.618** (0.249)	1.614*** (0.537)	0.469* (0.277)	0.490** (0.198)	0.617*** (0.199)	0.497* (0.302)	0.683** (0.347)	0.425** (0.205)
Controls	N	Y	N	N	N	N	N	N
Country Frailties	Y	Y	Y	Y	Y	Y	Y	Y
Index Weighting	ICW	ICW	EW	ICW	EW	ICW	EW	ICW
Log-Likelihood	-196.006	-66.528	-171.029	-322.153	-327.956	-105.768	-107.686	-197.212
AIC	394.013	134.172	344.057	646.306	657.913	213.537	217.339	396.423
Observations	4394	2624	4394	4394	4394	4394	4394	4394

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses; the table displays standardized coefficients rather than hazard ratios; the model is stratified by the number of one standard deviation policy changes a country has made; frailty terms are for country; Efron's method is used for ties. ICW refers to our main index, which is aggregated by inverse covariance-weighting. EW refers to our alternate, equally-weighted index.

The Determinants of Policy Liberalization

Intense, proximate civil wars are the catalyst for asylum policy changes in the developing world. But what factors influence the direction of policy change? To assess this question, we turn now to Table 4, which reports the results of models that evaluate the determinants of one standard deviation liberalizing policy changes. Column 1 introduces our core set of covariates, and column 2 represents our baseline, conditional frailty specification. In column 3, we add frailty terms (random effects) for year, in addition to the frailty terms for country included in the core conditional frailty specification. In columns 4 through 6, we introduce spatial lags to capture policy diffusion effects. These terms assess whether the likelihood of liberalization changes when a regional neighbor liberalizes, when a country that shares the same legal origins liberalizes, and when a top aid recipient liberalizes.[33] The unit of analysis is the country-year. To account for the impetus to change policy, all models control for intense, proximate civil wars. All models

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[33] Regional neighbors are defined by 1500 kilometers of inter-capital distance. Top aid recipients are defined as receiving countries in the top 10 percentiles of DAC aid inflows. See Crabtree, Darmofal and Kern (2015) for another application of conditional frailty modeling with spatial lag terms.

also stratify by the number of one standard deviation policy liberalizations a country has made. Stratifying allows the baseline hazard rate to vary between observations with differing histories of liberalization. Tests (Grambsch and Therneau, 1994) presented in Figure S.24 of the appendix indicate that the proportional hazards assumption is satisfied.

Moving from top to bottom, the shaded rows display results for hypotheses 2, 3, and 4. Recall that hypothesis 2 suggests that liberalizing changes occur when the co-ethnics of national political elites are politically discriminated against abroad. Hypothesis 3 captures our expectation that the probability of liberalizing asylum policy changes increases as repressive regimes receive more Western economic assistance. Hypothesis 4 predicts that liberalizing (restrictive) policy changes are less (more) likely among wealthier countries. We find robust support for hypotheses 2 and 4, but no support for hypothesis 3. These core results hold even after we model potential spatial spillovers in asylum policymaking.

Because elite kin discrimination is a binary variable, the substantive interpretation is straightforward. In line with hypothesis 2, the association between elite kin discrimination and policy liberality is large, positive, and statistically significant. The relative hazard is the expected change in the hazard moving from a country that is not experiencing elite kin discrimination to one that is—in other words, "turning on" elite kin discrimination. Exponentiating the coefficient from our baseline specification in column 2 of Table 4 gives the conditional multiplicative effect of elite kin discrimination on the probability of a one standard deviation liberalizing change in asylum policy. Taking $e^{(1.267)} = 3.550$ suggests countries are about 255% more likely to liberalize asylum policy when national political elites' co-ethnics in neighboring states are politically discriminated against. In our best-fitting model in column 3, elite kin discrimination is estimated to increase the likelihood of asylum policy liberalization by 370%.

Interviews we conducted in Uganda seem to corroborate the role of elite concerns about their ethnic kin in neighboring states. In particular, a number of our respondents highlighted the Ugandan leadership's sense of obligation to co-ethnics in neighboring countries. For example, one Ugandan employee of an international aid agency pointed to

Table 4: The Determinants of Liberalizing Asylum Policy Changes

VARIABLES	(1) +1 SD Liberalization	(2) +1 SD Liberalization	(3) +1 SD Liberalization	(4) +1 SD Liberalization	(5) +1 SD Liberalization	(6) +1 SD Liberalization
Elite Kin Discrimination	1.206**	1.267**	1.547***	1.031*	1.257**	1.532**
	(0.589)	(0.552)	(0.373)	(0.544)	(0.547)	(0.613)
DAC Aid/GDP x Repression	1.554	1.429	-0.621	-0.284	1.376	2.889
	(2.617)	(2.410)	(1.394)	(2.926)	(2.445)	(2.510)
GDP/Capita	-0.944***	-0.970***	-1.183***	-0.939***	-0.957***	-1.162***
	(0.296)	(0.277)	(0.171)	(0.319)	(0.285)	(0.289)
Civil Conflict in Neighbor (1000+ Battle Deaths in Prior Year)	2.068***	2.127***	2.448***	2.046***	2.170***	2.272***
	(0.590)	(0.562)	(0.354)	(0.616)	(0.519)	(0.644)
DAC Aid/GDP	-5.780	-6.233	-8.414***	-2.374	-6.148	-9.703**
	(4.662)	(4.283)	(2.734)	(4.346)	(4.425)	(4.750)
Repression	-0.547	-0.534	-0.395	-0.494	-0.524	-0.775
	(0.684)	(0.655)	(0.371)	(0.664)	(0.663)	(0.712)
Population	-1.358***	-1.403***	-1.558***	-1.325***	-1.420***	-1.516***
	(0.325)	(0.318)	(0.231)	(0.392)	(0.298)	(0.356)
Democracy	-4.235	-4.226*	-3.513***	-5.213*	-4.147	-3.436
	(2.767)	(2.561)	(1.332)	(2.955)	(2.606)	(2.463)
Civil War in Policymaker	-0.340	-0.357	-0.258	-0.420	-0.375	-0.281
	(0.775)	(0.721)	(0.436)	(0.780)	(0.707)	(0.718)
Transnational Terrorism	-0.181	-0.181	-0.194	0.102	-0.175	-0.253
	(0.408)	(0.404)	(0.207)	(0.405)	(0.403)	(0.473)
Trade-to-GDP Ratio	-1.532**	-1.563**	-1.508***	-1.133	-1.624**	-1.607**
	(0.707)	(0.680)	(0.453)	(0.705)	(0.736)	(0.667)
Regional Liberalization (Prior 3 Years)				1.396***		
				(0.372)		
Common Legal Origins Liberalization (Prior 3 Years)					-0.208	
					(0.469)	
Top DAC Aid Recipient Liberalization (Prior 3 Years)						-1.529***
						(0.559)
Country Frailties	N	Y	Y	Y	Y	Y
Year Frailties	N	N	Y	N	N	N
Log-Likelihood	-53.954	-53.962	-49.092	-48.808	-53.878	-49.521
AIC	129.907	124.022	109.850	121.510	125.803	120.017
Observations	2624	2624	2624	2624	2624	2624

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses; the table displays standardized coefficients rather than hazard ratios; the model is stratified by the number of one standard deviation liberalizing policy changes a country has made; Efron's method is used for ties.

the extent of historical, cross-border kinship ties:

> "One thing is that the Great Lakes region... in these areas they have communities in all of these other countries. You know? South Sudan and Uganda, Rwanda and Uganda, Congo and Uganda, Kenya even. T'was only colonial times that made these boundaries. Before that there were kingdoms and groups crossing all sides."[34]

Expanding this intuition, the director of an international NGO working on refugee welfare in Uganda explained:

> "When it comes down to it, it comes to leaders and dignity. I think when you talk to government officials here it's clear. Even the Prime Minister and other top officials at one point or another... most Ugandans were refugees for many years. These leaders have taken the approach that we've been able to see what it is to be a refugee, and we want to build a foundation of dignity and respect. That's what it's about—their historical sense of dignity and respect. It's important that we treat people well. And also, I think Museveni is a pan-Africanist. He understands that these borders are arbitrary, and people flow in and out. He also understands the history of the refugee movement in Uganda. He knows that they have always hosted people, and people have always crossed back and forth across the borders. I think that's what it is. ... These people were known to one another. They aren't isolated. There's no cultural barrier."[35]

Moving to H3, is it the case that repressive regimes dependent on external economic assistance from actors in the Global North engage in strategic asylum policy liberalization? Here, the qualitative and quantitative evidence are not perfectly aligned. In the Uganda case, this expectation seems to hold well. Uganda is a hybrid regime that engages in substantial violations of civil liberties but maintains a liberal asylum policy, which helps the regime retain generous external assistance packages and generates political cover for the government's other illiberal activities. For instance, one activist told us:

> "The new Refugee Act is doing well but it serves diplomatic purposes I think. ... I'm questioning the motive behind the Act, and the spirit behind the Uganda Refugees Act of 2006. To who does it benefit? It is political games. It helps the Uganda government and the UNHCR. It shows well in London, Brussels, Geneva. ... on paper it is quite interesting. Maybe the other countries are not smart enough to have this policy on paper, where Uganda goes to Geneva and everybody claps."[36]

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[34] Author interview, Kampala, Uganda, June 27, 2017.

[35] Author interview, Kampala, Uganda, June 30, 2017.

[36] Author interview, Kampala, Uganda, June 14, 2017.

As this activist describes, Uganda's liberal asylum policy has garnered it substantial international praise. But what illiberal policies does it provide cover for? Another humanitarian worker we spoke with pointed to Uganda's extensive military engagements in East Africa, as well as Ugandan president Yoweri Museveni's business interests in the region.

> "But at the same time you have the Ugandan government creating instability in the DRC and South Sudan. It is a really smart policy—having this policy that really takes off pressure in this region, and then you have a blind eye to other activities. He [Museveni] is very active in this region. Of course there are oil interests in South Sudan, and Uganda has many food exports to South Sudan. He [Museveni] has these interests. He gets away with a lot of things. ... There's a very interesting angle about this refugee policy—it's covering up this other policy of creating instability around Uganda, and then creating this haven. There are a million refugees here. That's not a stabilizing factor. He [Museveni] is gaining a lot from it... so much positive coverage. I like the policy, but not if it's feeding into creating more refugees."[37]

A third interviewee, a South Sudanese activist in Uganda, put it more simply:

> "Refugees—it is also income for a country. You get money as a nation. You know how much money is going to the government. ... They can be used for a political reason too. You can sell them, not as a person, but to the international community. And say, 'Look what I'm doing for them. What can you do for me?'"[38]

In sum, our qualitative interviews highlight strategic liberalization, whereby repressive regimes dependent on Western economic assistance undertake asylum policy liberalization, in part to garner diplomatic praise that serves as political cover for other illiberal activities in which the regime engages. In the Ugandan context, several interviewees pointed to the fact that Uganda's asylum policy deflects attention from its destabilizing military interventions in neighboring countries, for instance.

How well does the Uganda case generalize? Results from Table 4 do not yield evidence that aid-dependent, repressive regimes are more likely to liberalize asylum policy. Caution is required when interpreting these results because DAC aid inflows are not

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[37] Author interview, Kampala, Uganda, June 21, 2017.
[38] Author interview, Kampala, Uganda, June 16, 2017.

random.[39] Nevertheless, the suggestive evidence indicates Uganda's case is an exception, rather than the rule. Coefficients on the interaction term are imprecisely estimated and occasionally negative. Column 6, our best-fitting model, introduces a spatial lag to probe the relationship between DAC aid and liberalization further. Specifically, in column 6 we include an indicator for whether a country in the 90th percentile of DAC aid inflows liberalized its asylum policy in the prior three years. Our intuition is that countries are more likely to liberalize their asylum policies when top aid recipients have recently liberalized their own policies. The logic is that countries should emulate the policies of top aid recipients, understanding that liberalization often accompanies increased aid flows. Instead, the coefficient on the spatial lag term in column 6 indicates that other countries become *less likely* to liberalize their asylum policies when top aid recipients have recently liberalized.

This result suggests two potential phenomena. First, it may be that countries observe liberalization by top aid recipients and "free ride." If the fiscal fruits of liberal policy reforms (e.g. increased aid) are offset by increased expenditures stemming from a concomitant rise in FDP arrivals,[40] developing countries considering liberalization might refrain from doing so when top aid recipients—which can better afford the increased hosting burden likely to accompany policy liberalization—make liberal reforms (Milner, 2009). Second, it could be that developing countries learn about donor commitment and demands by observing liberalizations undertaken by top aid recipients. In particular, other states can observe: (1) the extent to which donors durably increase funding to top, liberalizing recipients; and (2) the extent to which donors demand increased accountability over aid given in return for policy liberalization. If donor commitment to top aid recipients wanes quickly after the latter liberalize, or if donors demand intrusive accountability mechanisms over transactional aid-for-liberalization, other states may refrain from

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[39]It is difficult to identify the causal effect of aid on asylum policy reform because reforms may follow aid or aid may follow reforms (Loescher, 1996). More broadly, aid is also endogenous to refugee flows (Bermeo and Leblang, 2015).

[40]Below we document the positive relationship between liberal asylum policies and FDP arrivals.

liberalizing when top recipients do because of 'negative' learning.

Of these explanations, our qualitative evidence supports the latter. While they did suggest that Uganda engaged in transactional liberalization, our interviewees also pointed to the possibility of negative learning about top aid recipients' asylum policy reforms. Above all, individuals we spoke to expressed concern about the failure of the Uganda Solidarity Summit on Refugees, held in Kampala, Uganda on June 22-23, 2017 in collaboration with the UN. The Summit, which sought to raise $2 billion, only raised $385 million to fund Uganda's liberal policy provisions. And as the head of a UNHCR implementing partner organization told us:

> "... of that only $10-20 million was new [previously uncommitted] money. I just don't know how long the policy is sustainable if donors aren't willing to keep pace and put in their due. As proof the Summit was a disaster, it's not even on the agenda of the interagency meeting today. So the challenge becomes twofold because the international community said we would get money, and we haven't. ... Commissioners in these [refugee-hosting] areas won't take them [more refugees] because the money is not forthcoming."[41]

Even UN officials, who were more sanguine about the Summit, expressed concern about donor commitment. A UNICEF official noted,

> "the capacity to support this generosity is another major concern. I'm not worried this year because of the Summit money, but I'm very worried next year because I don't see special interest in funding ... If there is no emergency donors don't care as much."[42]

Likewise, an IOM official sarcastically explained,

> "someone asked the Secretary-General about whether it was possible to get $2 billion for the next year... The Secretary-General was sporting, and said 'things just don't happen all at once. It was a very good start."[43]

Nor is this problem unique to Uganda. A Tanzanian aid worker in Kampala also spoke about Tanzania's failed plan to naturalize Burundian refugees. As she described:

> "The problem is they were expecting a lot of money from development partners for that. The international community had promised a lot, and Tanzania didn't get it. That's the constant trouble. There is never enough funding. And I wonder when the African countries will get tired of failed promises. If the money is not forthcoming, the initiatives will stop."[44]

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[41] Author interview, Kampala, Uganda, June 30, 2017.
[42] Author interview, Kampala, Uganda, July 11, 2017.
[43] Author interview, Kampala, Uganda, July 12, 2017.
[44] Author interview, Kampala, Uganda, June 30, 2017.

This evidence suggests that the problem of insufficient aid is ubiquitous, and implies that one reason for the null results on H3 owes to the fact that developing states are justifiably skeptical of aid-for-liberalization schemes. But built-in donor accountability mechanisms may also deter repressive, aid-dependent regimes from accepting aid in exchange for policy reform. In Uganda, a damning UN audit released in November 2018 uncovered massive fraud, including waste and undocumented payments to government officials from the refugee aid budget (Okiror, 2018). Prior to the report's release, some of our interviewees expressed suspicions about corruption:

> "I have a feeling those numbers—1 million, 1.2 million [new refugee arrivals in 2016]—are inflated. They like to make it public, and I'd say they have good motivations to. The refugees attract significant monetary benefit. ... There's no doubt some ministers somewhere get money somehow... ."[45]

Four government officials, including the Commissioner for Refugees, were sacked as a result of the audit, and in February 2019 the UK and Germany suspended refugee aid to Uganda until "the implementation of stringent integrity measures..." (Okiror, 2019). This episode highlights a potential cost of aid in return for liberalization—increased donor scrutiny—which could deter countries from pursuing transactional aid, and is likely to disproportionately affect more repressive regimes, which are generally more corrupt.

Apart from our core hypotheses, a number of other covariates in our models are also substantively important and shed light on existing theories of asylum and migration policymaking. For instance, past work suggests that democracies will often find it harder to liberalize migration policy because public opinion generally opposes large migrant influxes (Hollifield, 1992; Milner, 2009; Natter, 2018). Large, precisely estimated negative coefficients across the democracy term are consistent with this view. Coefficients on the trade-to-GDP ratio term, likewise, suggest that countries more open to international trade are less likely to liberalize their asylum policies, corroborating the core implication of Peters (2015, 2017)'s work. Like trade openness, wealthier states, as proxied by GDP per capita, are less likely to liberalize, providing preliminary support for hypothesis 4, which finds a more direct test in our models of policy restriction below. Finally, asylum

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[45] Author interview, Kampala, Uganda, July 4, 2017.

policy appears to diffuse spatially. Results from column 4 indicate that countries are 304% more likely to liberalize their asylum policies when other states in their region liberalize. Regional diffusion makes sense in our theoretical framework because both civil wars in nearby states and kin discrimination are regionally-concentrated, cross-border phenomena. In contrast, diffusion does not emerge among states with common legal origins. That covariates align with theoretical intuition lends confidence in our specification.

## Robustness of Liberalization Results

To probe the robustness of our core findings we conduct a host of additional tests. First, in Figure 6 we plot the estimated coefficients for our main variable, elite kin discrimination, at different thresholds of policy liberalization, and using a different aggregation scheme for our index (equally-weighted versus inverse covariance-weighted). Regression results for these models are based on our best-fitting specification in column 3 of Table 4, and are available in Table S.25 of the appendix. Elite kin discrimination explains large policy changes of one standard deviation or more, but only weakly predicts smaller procedural policy changes. Because policymakers have incentives to make conditions as hospitable as possible when co-ethnic flows are anticipated, this finding comports with our theoretical logic.

In Figure S.26 we re-estimate our core specification with a series of additional controls. The effect of elite kin discrimination on asylum policy liberalization remains large, positive, and significant, even after we control for a country's policy level, colonial history, unemployment, natural resource endowments (Shin, 2017, 2019), Chinese economic assistance (Dreher and Fuchs, 2015), ruling party political orientation, and the Cold War and post-9/11 eras. The effect of elite kin discrimination on asylum policy liberalization also holds when we exclude newly independent countries with an incentive to shift policies inherited from colonial powers.[46] Figure S.27 verifies that our results are

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[46]Specifically, we exclude the pre-1990 decolonization period (column 8 of Figure S.26) and exclude years within each country's first post-independence decade (column 9 of Figure S.26).

Figure 6: The Effect of Elite Kin Discrimination Over Liberalization Thresholds
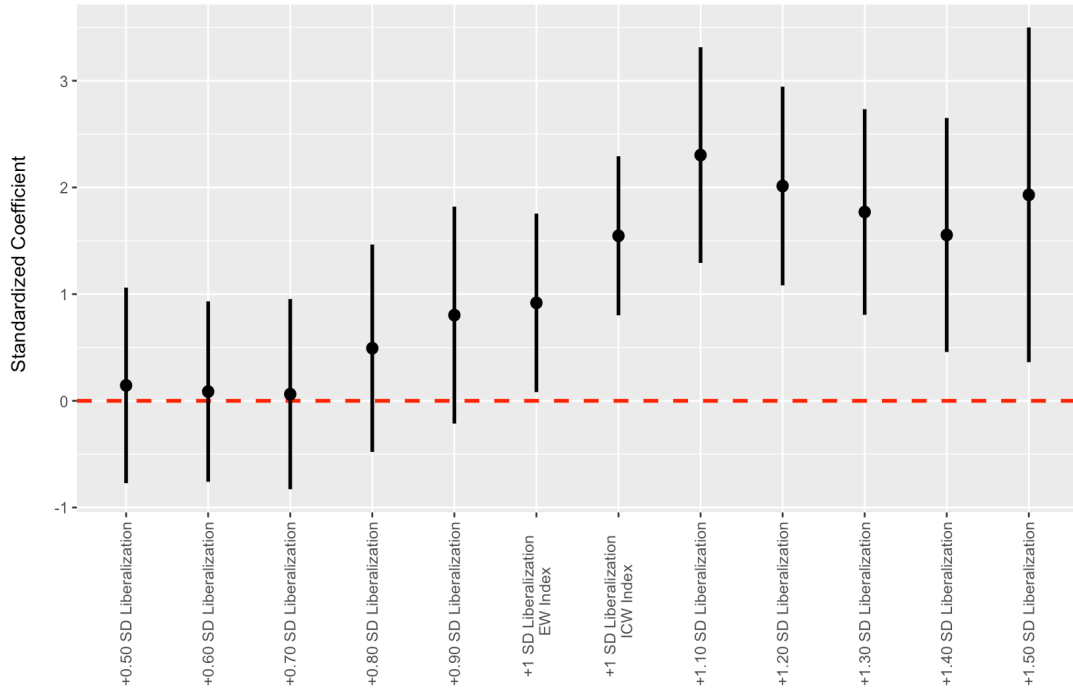
Note: Plots denote coefficients and 95% confidence intervals for elite kin discrimination at different thresholds of policy liberalization. In the sixth plot, "EW Index" denotes our equally-weighted rather than our inverse covariance-weighted index. The seventh plot ("+1 SD Liberalization") gives the estimate from column 3 of Table 4 for reference. The dashed line marks 0.

not sensitive to the inter-capital distance threshold we use to define the region within which status differentials between kin groups are most salient. Figure S.28 tests for influential observations by iteratively dropping countries that experienced liberalizing policy changes above the 90th percentile of the annual difference in policy score. In Table S.29, we show that substantively identical results hold when we replace our continuous repression measure with a coarsened variant of the repression index. In Table S.30 we consider a competing risks estimator. This allows us estimate the marginal probability of (one standard deviation) liberalization, while taking account of competing risks in the form of smaller magnitude liberalizing or restrictive changes. Finally, in Table S.31 we depart from survival modeling, and instead estimate two-stage Heckman and conditional mixed process models, along with a random-effects OLS model. Here, we take the difference in a country's policy score from year *t-1* to year *t* as the main outcome of interest. Across all tests, our main finding—that countries are more likely to liberalize asylum policies when political elites' co-ethnics are discriminated in neighboring countries—holds.

The Determinants of Policy Restriction

Our data strongly suggest asylum policy is trending toward liberalization in the developing world. As such, our primary theoretical interest is in the drivers of liberalizing policy changes. However, in a small number of prominent, recent cases, countries in the Global South with historically liberal asylum policies have become more restrictive. For example, Turkey restricted its policy in 2013 as refugee flows from the Syrian civil war mounted, and Nigeria restricted its policy in 2015, at the height of the Lake Chad crisis. In Table 5, we turn to the determinants of restrictive policy changes. Our theoretical expectation, building on neoclassical economic models (Timmer and Williamson, 1998; Hanson and McIntosh, 2016) and recent evidence (Boehmer and Peña, 2012), is that asylum policy restriction is more likely when countries become wealthier. As national wealth increases, expected flows increase (Czaika, 2009; Fitzgerald, Leblang and Teets, 2014) in tandem with concerns about migrant-induced labor market and welfare competition (Facchini and Mayda, 2008).

Because we have so few restrictive changes in our data (9 observations with a one standard deviation restriction), we estimate our models of restriction with a sparse covariate set. Specifically, we include our independent variable of interest, GDP per capita, and population. Using this reduced set of covariates ensures we do not lose observations of restrictive changes due to missingness in our covariates.

As shown in Table 5, we find robust support for our expectation. Wealthier countries are significantly more likely to restrict asylum policy. Notably, we observe a significant positive coefficient for GDP per capita on both one standard deviation policy restrictions and one-and-one-half standard deviation policy restrictions, but not for smaller restrictive changes. Exponentiating the coefficient from column 3 of table 5 suggests that increasing GDP per capita by one—an approximate increase of 0.71 standard deviations—is associated with a 123% increase in the likelihood of a one standard deviation restrictive policy change. Additional tests in Table S.32 and Figure S.46 of the appendix suggest the association between GDP per capita and policy restriction is robust to index aggregation and removing influential observations.

Table 5: The Determinants of Restrictive Asylum Policy Changes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	-1 SD Restriction	-1 SD Restriction	-1 SD Restriction	-1.5 SD Restriction	-0.75 SD Restriction	-0.5 SD Restriction	-0.25 SD Restriction
GDP/Capita	0.779***	0.779***	0.802***	0.832***	0.321	0.173	0.121
	(0.213)	(0.213)	(0.208)	(0.191)	(0.211)	(0.151)	(0.139)
Population	0.789***	0.789***	0.820***	0.858***	0.531***	0.300***	0.227***
	(0.194)	(0.194)	(0.164)	(0.148)	(0.140)	(0.112)	(0.085)
Country Frailties	N	Y	Y	Y	Y	Y	Y
Year Frailties	N	N	Y	Y	Y	Y	Y
Log-Likelihood	-17.159	-17.159	-12.566	-9.031	-18.828	-40.596	-40.179
AIC	38.317	38.317	40.461	46.464	59.074	109.977	143.194
Observations	3627	3627	3627	3627	3627	3627	3627

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses; the table displays standardized coefficients rather than hazard ratios; the model is stratified by the number of the respective magnitude standard deviation restrictive policy changes a country has made; Efron's method is used for ties.

Asylum Policy and Migrant Decisionmaking

The analyses conducted thus far offer valuable insights into the determinants of *de jure* asylum policymaking in the developing world, and shed particular light on the factors driving liberalization in the Global South. However, one might discount the importance of studying asylum policymaking in the developing world. In particular, we suspect that the prevailing academic neglect of developing world migration policymaking owes to a strong presumption that *de jure* policies are inconsequential in the Global South.

This belief is likely premised on two assumptions. First, given resource and accountability deficits, it is assumed that developing countries suffer enforcement gaps, resulting in *de facto* policy outcomes distinct from (and inferior to) *de jure* legal provisions. However, it is also possible that developing countries have genuine incentives to promote inflows via asylum policies if they believe migration will contribute to, say, human capital formation (Taylor et al., 2016; Betts et al., 2017). The second factor relates to policy knowledge. If prospective FDPs are unaware of policies in destination countries, as some evidence suggests (Havinga and Böcker, 1999; Robinson and Segrott, 2002), *de jure* provisions cannot enter their decisionmaking.[47] This assumption could break down

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[47]Rumor dynamics, poor government communication, and disjunctures between *de jure*

in the face of growing interconnections between origin and destination countries, driven by technological developments and globalization (Bacishoga, Hooper and Johnston, 2017), which facilitate the diffusion of knowledge about asylum policies in the developing world. Indeed, Holland and Peters (2020) show that asylum-seekers are relatively well-informed about policies and procedures, and actively seek out information about policy openings in potential countries of asylum. Our interviews with forced migrants in Uganda comport with Holland and Peters (2020)'s findings.

To underscore the importance of studying policy regimes, we explore the role of *de jure* asylum policies in forced migrants' decisionmaking. Theoretically, we apply Czaika (2009)'s seminal model of asylum policymaking, which formalizes the intuition that asylum-seekers are attracted to more liberal asylum policies.[48] To the best of our knowledge, no study outside the OECD context has rigorously tested the key assumption in Czaika's model about the importance of target country policies in asylum seekers' decisionmaking. Empirically, we build on growing evidence surrounding the links between policy and migration in the West. Within the OECD, asylum policy reforms that complicate status determination (Hatton, 2009) and restrict employment (Thielemann, 2006) have been shown to reduce inflows, while reforms that facilitate welfare access (Hatton, 2016), citizenship (Fitzgerald, Leblang and Teets, 2014) and employment rights (Holland, Peters and Sánchez, 2019) attract migrants.

We argue that, even in the context of the developing world where distance considerations (i.e. cost of travel) loom large, policies affording refugees more expansive rights—such as the right to move freely within countries of asylum, to own property, to seek employment, and to access public services—pull asylum seekers to specific target countries. This is because *de jure* policies affect the prospects for migrant assimilation, security, and prosperity. Affording refugees and asylum-seekers rights such as employment and free movement (Betts et al., 2017), access to aid (Taylor et al., 2016), citi-

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policies and *de facto* implementation contribute to low policy knowledge (Carlson, Jakli and Linos, 2018).

[48]See Section S.34 of the appendix for a fuller survey of the literature on migrant and asylum seekers decisionmaking.

zenship (Gathmann and Keller, 2018) and opportunities for political participation (Fer-werda, Finseraas and Bergh, 2018), bolster integration into host societies and magnify the positive effects of migrant inflows on fiscal performance in host countries (d'Albis, Boubtane and Coulibaly, 2018). Indeed, once exposed to relatively liberal policy environments, migrants prefer to remain in countries where they can access more and better services (Balcilar and Nugent, 2019), and mobilize to enhance opportunities for service access (Clarke, 2018). Liberal policy provisions facilitating access to the rights outlined above, then, should attract asylum-seekers, who prefer integration in the face of protracted displacement *ceteris paribus*. However, the "pull" of liberal policy provisions is conditional on policy knowledge and other facilitators of integration, such as co-ethnic networks (Martén, Hainmueller and Hangartner, 2019), which ease arrival and help new migrants realize *de jure* rights.

To test whether asylum and refugee policies matter in FDPs' decisionmaking, we estimate Poisson pseudo-maximum likelihood (PPML) gravity models (Silva and Tenreyro, 2006). We justify our choice of estimator, discuss data sources, and present descriptive statistics in Sections S.35 through S.37 and Tables S.38 and S.39 of the appendix. The dependent variable is the directed dyadic *arrival rate*, calculated as $\frac{\text{(Asylum Applications+Prima Facie Arrivals)}}{\text{Country of Origin Population in Hundreds of Thousands}}$. By taking the *arrival rate*, we capture the magnitude and intensity of forced displacement between countries. Comparable rates are used in prominent gravity models of voluntary migration (Mayda, 2010; Hanson and McIntosh, 2016). Our main independent variable is the five-year lagged moving average of a destination country's asylum policy score.[49] To capture the conditioning effects of knowledge and integration facilitators on liberal asylum policies, we interact our policy measure with three distinct variables. First, to proxy for information diffusion we interact

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[49]Results are robust to alternative operationalizations. Specifically, in Figure 8 below we analyze results replacing our policy index with an index of each policy strand: access, services, livelihoods, movement, and participation. We also show that our results are robust to using an equally-weighted versus inverse covariance-weighted index (Table S.43), and to changing the lag structure of the index (Tables S.44 and S.45).

our policy measure with an indicator for mobile penetration in countries of origin.[50] Second, also to capture information diffusion, we interact our policy measure with an index of information openness (Dreher, 2006) in countries of origin. This index aggregates data on press freedom, internet bandwidth, and television and internet subscriptions. Finally, to capture both information diffusion and integration ease, we interact our policy measure with an indicator for the presence of transnational ethnic kin in a dyad; kin both communicate about policy environments and assist migrants in realizing their rights, for example by creating labor market opportunities (Munshi, 2003) where migrants have the right to work.

Table 6 reports results from three gravity models representing the core of our empirical extension.[51] In turn, we interact our asylum policy index with measures of mobile penetration in origin countries, information openness in origin countries, and transnational ethnic kinship ties between origin and destination countries. Interaction terms indicate the effect of liberal *de jure* asylum policy environments on forced migrant flows when information about policies in prospective destination countries is more readily accessible (mobile penetration and information openness) and when co-ethnic networks are available, which facilitate both information diffusion and integration. To highlight the substantive effect of asylum policy liberality on forced migrant flows, conditional on a key facilitator, in Figure 7 we plot average marginal effects from column 3 of Table 6. Moving from a dyad without transnational ethnic kin to a dyad with transnational ethnic kin is associated with a 0.00016 increase in the predicted arrival rate as asylum policy increases in liberality from its 10th to 90th percentile, *ceteris paribus*. For the average origin country's population, this means that relative to dyads without transnational ethnic kin, dyads with transnational ethnic kin see an additional 4576 FDPs in a given year as asylum policy liberality increases from the 10th to 90th percentile in the country of asylum. This is comparable in magnitude to the effect of reducing dyadic inter-capital distance by

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[50]We coarsen the number of mobile subscriptions per capita in a country of origin along its interquartile range, and give a value of 1 for all observations in the top quartile of mobile penetration, or 0 otherwise.

[51]Full regression results are shown in Table S.41 of the appendix.

nearly 1.5 standard deviations, and is 24% larger than the effect of moving from a dyad where no common official language is shared, to one with a common language. Returning to the Uganda case, a back-of-the-envelope calculation based on estimates in column 3 of Table 6 suggests that Uganda's liberal asylum policy accounted for about 21% of all its FDPs arrivals in 2016, at the height of the South Sudan crisis.

Table 6: Asylum Policy Liberality, Policy Facilitators, and Forced Migrant Flows

VARIABLES	(1) PPML	(2) PPML	(3) PPML
Asylum Policy Index x Mobile Penetration in CoO	2.184*		
	(1.166)		
Mobile Penetration in CoO	-0.644		
	(0.503)		
Asylum Policy Index (5 Yr. MA) x Information Openness in CoO		1.414**	
		(0.628)	
Information Openness in CoO		-1.009**	
		(0.438)	
Asylum Policy Index (5 Yr. MA) x Transnational Ethnic Kin			3.238**
			(1.358)
Transnational Ethnic Kin	0.728***	0.625***	-0.022
	(0.173)	(0.203)	(0.342)
Asylum Policy Index (5 Yr. MA)	-0.253	-6.866**	-1.345
	(1.849)	(2.841)	(1.287)
Baseline Controls	Y	Y	Y
Economic Controls	Y	Y	Y
Political Controls	Y	Y	Y
CoO FE	Y	Y	Y
CoA FE	Y	Y	Y
Year FE	Y	Y	Y
Constant	-18.127*	-15.284	-15.373
	(10.319)	(10.384)	(10.700)
Observations	119,399	119,238	119,719

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by dyad are in parentheses; CoO refers to country of origin and CoA refers to country of asylum.

These findings comport with testimonies of refugees we interviewed in Uganda. For instance, one South Sudanese refugee we spoke to noted that agricultural conditions and land allowances in Kenya and Uganda are well-known in states bordering these tar-

Figure 7: Average Marginal Effect of Transnational Ethnic Kin as Asylum Policy Becomes More Liberal
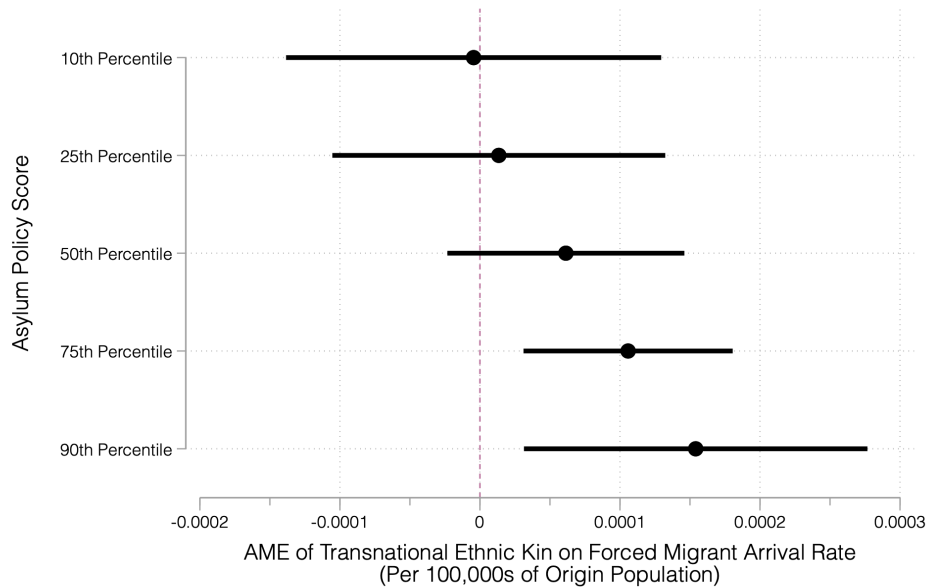
Note: The plot shows the effect of moving from a dyad without transnational ethnic kin to one with transnational ethnic kin at different levels of asylum policy liberality. Bars are 95% confidence intervals. Moving from the 10th percentile of the asylum policy index to the 90th percentile of the asylum policy index is equivalent to an increase in liberality of ≈ 2.44 standard deviations. The dashed line marks 0.

get countries, and that linguistic similarities across neighboring states eased information diffusion and integration. She explained:

> "The reason why we have so many refugees, South Sudanese to Uganda ... In Kenya, the land is not so fertile. The people communicate back home that the farming is not good, and the people cultivating go to Uganda. ... the host communities have the same language. The community members speak the same language, and you feel okay to speak with them. You feel okay with them."[52]

Similarly, discussing the role of the Somali diaspora, a Somali refugee to Uganda noted,

> "I can't go to Kenya because they don't give you a refugee card easily. ... but we only know Uganda from Kenya. We know it's safer here."[53]

A Ugandan humanitarian worker corroborated these refugee testimonies, and emphasized the role of kin in helping refugees capitalize on de jure rights, explaining:

> "They have the same names, speak the same languages... this means they may locally reintegrate... ."[54]

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[52] Author interview, Kampala, Uganda, June 29, 2017.

[53] Author interview, Kampala, Uganda, June 29, 2017.

[54] Author interview, Kampala, Uganda, July 12, 2017.

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While the roles of co-ethnic networks in migrant decisionmaking are well-known, the evidence outlined above suggests another mechanism through which kinship ties influence migration—through policy knowledge. The suggestive evidence presented here implies that forced migrants are aware of asylum policies, especially in states where co-ethnics reside. These findings help establish our broader contention that *de jure* policies do affect forced migrants' calculi.

As a final test, we explore how different elements of asylum policy affect flows of FDPs. Having established that liberal asylum policies are associated with a meaningful increase in arrival rates, conditional on facilitating factors that ease information diffusion and integration, we disaggregate our asylum policy index to its constituent policy fields. Recall that we categorized our 54 coded policy provisions into five policy fields—access, services, livelihoods, movement, and participation. Additional details on how we categorized and coded policy provisions are provided in Table 2. The access field captures policy provisions related to status security and entry procedures; the services field captures provisions on refugees' access to education, aid, and healthcare; the livelihoods field captures regulations on refugees' property and employment rights; the movement field captures encampment policies and migrant access to identification and travel documents; and the participation field captures rules on citizenship and civic engagement. In Figure 8, we present results replacing the full policy index score with a five-year moving average of the index score for each constituent policy field successively. Models follow our specifications in Table 6. Full regression results are shown in Table S.42 of the appendix.

We find that the conditional positive association between asylum policy and arrival rates is driven primarily by liberal policy provisions regarding FDPs' access to public goods in countries of asylum (service index), employment and property rights (livelihoods index), and freedom of movement and access to documents (movement index). These findings are consistent with much of what has been written about the importance of asylum-seekers' rights to work (Thielemann, 2006; Holland, Peters and Sánchez, 2019), access welfare and services (Hatton, 2016), and live outside of refugee camps (Betts et al., 2017). They also echo themes that consistently came up in our interviews in

Figure 8: Disaggregating the Effects of Liberal Asylum Policy Provisions
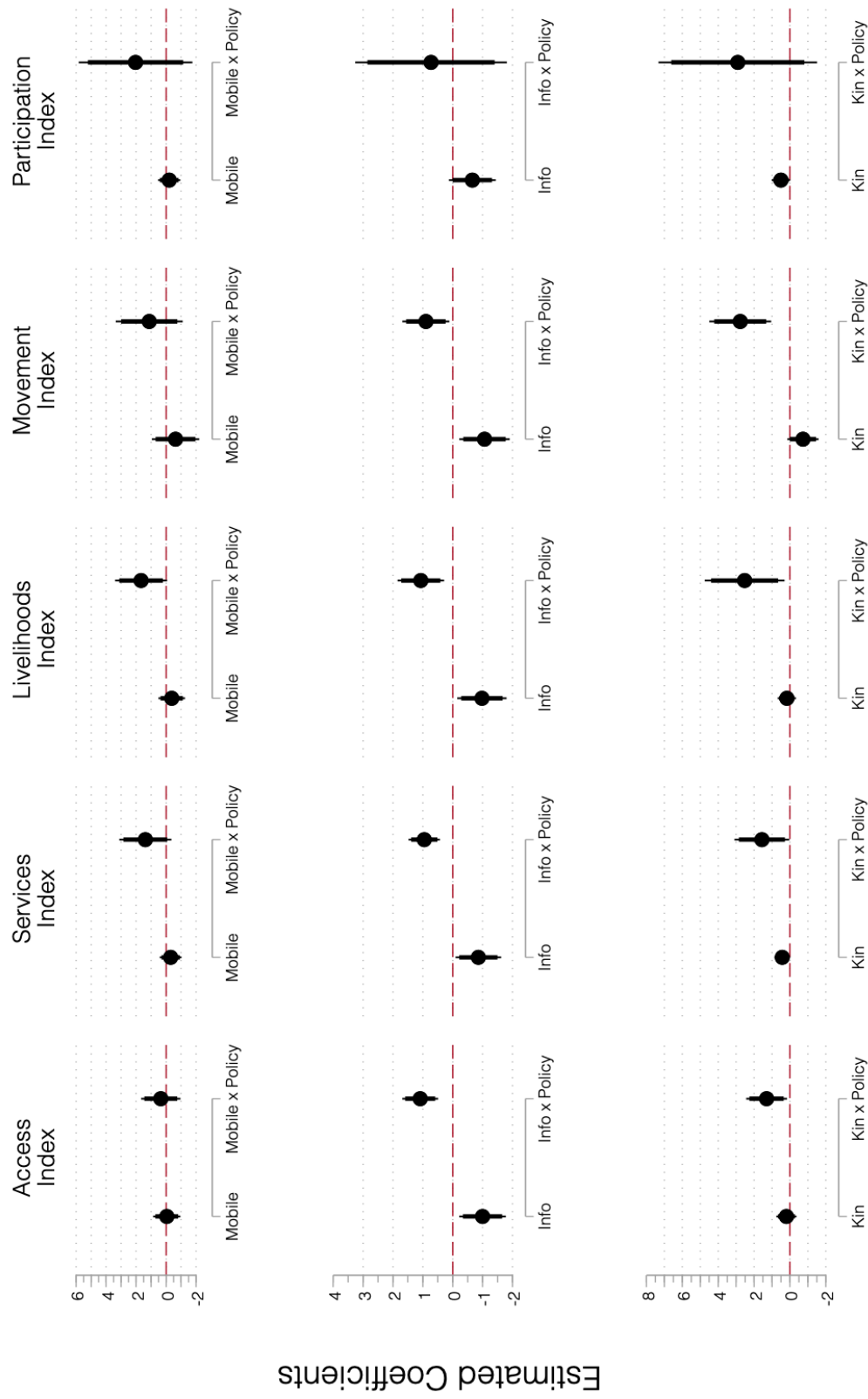
Note: The top panel shows regression coefficients for models interacting mobile penetration with each of our five policy field indices. The middle panel shows regression coefficients for models interacting information openness with each of our five policy field indices. The bottom panel shows regression coefficients for models interacting transnational ethnic kin with each of our five policy field indices. Thick and thin bars are 90% and 95% confidence intervals respectively. The dashed lines mark 0.

Uganda. For instance, a Somali refugee in Kampala told us:

> "In Kenya Dadaab you can't go to Nairobi. But here you can go to the city for work."[55]

Similarly, a South Sudanese forced migrant noted:

> "I was in Sudan and there are problems. ... Sudan wants no one in the cities. In Uganda, there is free movement."[56]

These statements are consistent with our gravity models suggesting asylum seekers are particularly attracted to policy environments affording them rights to work and live outside of refugee camps.

Coefficients on access policies are also positive and significant, but the magnitude of this effect is comparatively small. By contrast, provisions regarding citizenship and civic participation appear to have little effect on asylum rates in the developing world. This result challenges existing findings based on OECD data on labor migrant flows, which show a robust association between citizenship rights and migrant inflows (Fitzgerald, Leblang and Teets, 2014; Alarian and Goodman, 2018). That citizenship and political engagement rights do not significantly affect developing world asylum-seekers' decisions about where to flee has an intuitive explanation. Most developing world refugees and asylum-seekers typically either want to return to their home countries or seek resettlement in Western countries, not to reside permanently in an asylum country in the Global South. As one Congolese respondent in Uganda estimated,

> "90% [of Congolese refugees in Uganda]" do not want to remain in Uganda, compared to returning to the Democratic Republic of the Congo or resettling in a third country."[57]

Insofar as permanent residency is not a goal, the null effects on asylum rates of liberal citizenship policies make sense.

To ensure these results are robust to model specification, in Table S.43 we re-run the analyses with an equally-weighted index of asylum policy rather than the inverse

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[55] Author interview, Kampala, Uganda, June 29, 2017.
[56] Author interview, Kampala, Uganda, June 29, 2017.
[57] Author interview, Kampala, Uganda, June 14, 2017.

covariance-weighted index employed in our primary models. We also show that our results are robust to different lag structures of the asylum policy index. Specifically, in Tables S.44 and S.45 we take our preferred models, from Table 6, and re-run them using a three-year moving average and simple three and five-year lags of the asylum policy index, rather than the five-year moving average of the index score employed in our main models. Finally, in Figures S.46 through S.48 we depart from our gravity approach and estimate the effect of policy liberalization on FDP arrivals in a generalized synthetic controls framework (Xu, 2017). Results are substantively similar across all estimations, increasing confidence in our finding that liberal asylum policies pull FDPs to destination countries, conditional on information diffusion (mobile penetration and information openness) and transnational ethnic kin linkages.

Conclusion

In this paper, we introduce a new dataset of *de jure* asylum policies in the developing world—the most expansive of its kind—and employ it to study the correlates of asylum policymaking in the developing world, as well as the role of *de jure* policies as pull factors in flows of FDPs. In doing so, we contribute to several important academic and policy discussions. Above all, we offer the first systematic mapping of the policy space on forced displacement in the developing world. While recent crises have pinned attention on forced displacement in the West, developing countries bear the overwhelming burden of hosting refugees. Because existing studies have focused almost exclusively on OECD countries, existing analyses of the role of policies in migrant decisionmaking ignore the areas where the problem of forced migration is most severe. By mapping developing world asylum policies in a comprehensive, transparent way, we nearly double the existing country coverage of popular migration policy indices.

Second, we also contribute to salient academic and policy discussions about the determinants of asylum policy and policy trajectories. Unlike existing analyses which find a general tightening of forced migration policies in the West, we demonstrate that developing countries, especially in Sub-Saharan Africa and the post-Soviet space, have

pursued gradual policy liberalization. Moreover, we show that policy liberalization has been particularly prominent on status and entry procedures (access) and rights to free movement and documents (movement), and comparatively slower on civic participation and citizenship rights.

Existing theories of migration policymaking exhibit a substantial Western-centric bias, and we contribute new evidence that challenges existing theoretical models. Specifically, we establish four critical factors associated with asylum policy change in the developing world. First, we show that intense civil wars are a precipitating factor for large policy shifts. Second, we show that policy liberalizations are often a form of solidarity with kin when those kin are excluded from power in a neighboring country. Third, while there are striking examples of strategic policy liberalization by repressive autocrats, such as Uganda, this does not appear to be a more general pattern. Fourth, as in Western countries, national wealth is associated with policy restrictions in the developing world.

Finally, we demonstrate the important, direct role that *de jure* asylum and refugee policies play in migrant decisionmaking, conditional on the existence of factors like kin linkages and mobile penetration, which facilitate the diffusion of policy knowledge. Apart from quantifying the role of liberal policy measures in attracting migrants, our fine-grained policy coding scheme allows us to disaggregate our policy score into constituent fields. As the analyses suggest, giving FDPs greater access to services, employment opportunities, and rights to free movement appear to be particularly important policy pull factors. These findings contribute to the growing literature on how affording FDPs increased economic and social opportunities can facilitate growth and integration. These conclusions are supported by qualitative testimonies from forced migrants in Uganda. Going forward, utility-maximizing models of migrant decisionmaking must take policy provisions into account. Future work should also study the de facto asylum policy space in the Global South.

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Supplementary Materials for Forced Displacement and Asylum Policy in the Developing World

Christopher W. Blair, Guy Grossman, and Jeremy M. Weinstein

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Table S.1: National Laws and Policies on Forced Migration

Country	Law	Years
Afghanistan	Law on the Travel and Stay of Foreigners in the Islamic Republic of Afghanistan	2015-2017
Algeria	Décret no. 1963-274, du 1963 fixant les modalités d'application de la Convention de GenÃ¨ve du 28 juillet 1951 relative au statut des Réfugiés	1963-2017
Angola	Law No. 8/90 of May 26	1990-2017
Armenia	The Law of the Republic of Armenia on Refugees	1999-2008
	The Law of the Republic of Armenia on Refugees and Asylum	2009-2017
Azerbaijan	Law of the Republic of Azerbaijan On the Status of Refugees and Forced Migrants	1992-1999
	Law of the Republic of Azerbaijan On Legal Status of Aliens and Stateless Persons	1996-2013
	Law of the Republic of Azerbaijan "On Status of Refugees and Forcibly Displaced (Persons Displaced Within the Country) Persons"	1999-2017
	Law ?On Social Protection of Internally Displaced Persons and Persons Equated to Them?	1999-2017
	Decree Regarding the Approval of the ?State Program for the Improvement of living standards and generation of employment for refugees and IDPs?	2004-2017
	Migration Code of the Azerbaijan Republic	2013-2017
Bahrain	Aliens (Immigration and Residence) Act, 1965	1965-2017
Bangladesh	Foreigners Act of 1946	1971-2017
	Foreigners Order of 1951	1971-2017
Benin	Ordonnance No. 75-41 du 1975 portant statut des réfugiés	1975-2017
	Décret No. 1984-303 du 1984, portant sur la création, composition, attributions et fonctionnement de la Commission nationale chargée des réfugiés	1984-1997
	Decret No. 97-647 du 31 decembre 1997 portant sur création, composition, attributions et fonctionnement de la Commission nationale chargée des réfugiés (CNR)	1997-2017
Bhutan	The Immigration Act of the Kingdom of Bhutan	2007-2017
Botswana	Immigration Act of 1966	1966-2011
	Refugees (Recognition and Control) Act of 1968	1968-2017
	Refugees (Recognition and Control) Regulations of 1968	1968-2017
	Refugees (Recognition and Control) Order	1993-2017
	Immigration Act of 2011	2010-2017
	Immigration Regulations of 2011	2011-2017
Burkina Faso	Kiti No. AN V-360/FP/REX de 1988, relatif Ã la Commission Nationale pour les Réfugiés	1988-2008
	Zatu nÂ° AN V-0028/FP/PRES du 3 aoÃ»t 1988, portant statut des réfugiés	1988-2008
	Décret No. 1994-055/PRES/REX de 1997, portant application du statut des réfugiés	1994-2008
	La loi nÂ° 042-2008/AN du 23 octobre 2008 portant statut des rÃ©fugiÃ©s au Burkina Faso	2008-2017
	Decret No. 2011-118 PRES/PM/MAECR portant attributions, composition,organisation, et fonctionnement de la Commission Nationale pour les Réfugiés (CONAREF)	2011-2017
	Decret No. 2011-119 PRES/PM/MAECR relatif aux modalités d'application de la loi portant statut des rÃ©fugiÃ©s au Burkina Faso	2011-2017
Burundi	DÃ©cret-Loi nÂ°1/007 du 20 mars 1989 portant rÃ©glementation de l'accÃ¨s, du sÃ©jour, de l'Ã©tablissement des Ã©trangers sur le territoire du Burundi et de leur Ã©loignement	1989-2008
	Loi W 1/32 Du 13 Novembre 2008 Sur L'Asile Et La Protection Des Refugiés Au Burundi	2008-2017
Cameroon	Loi no 74/21 du 5 décembre 1974 portant répression de l'immigration et de l'immigration clandestine	1974-1990
	Loi nÂ° 1990/043 du 19 décembre 1990, Conditions d'entrée, de séjour et de sortie du territoire camerounais	1990-1997
	Loi No. 1997/012 du 1997, Fixant les conditions d'entrée, de séjour et de sortie des étrangers au Cameroun	1997-2017
	Loi nÂ°2005/006 du 27 juillet 2005 Portant statut des rÃ©fugiÃ©s au Cameroun	2005-2017
	Décret No. 2011/389 du 28 Novembre 2011	2011-2017
Central African Republic	Décret No. 1968/279 du 1968 fixant les conditions de délivrance de cartes d'identité et titres de voyages aux réfugiés en République Centrafricaine	1968-1981
	Décret No. 1983.278 de 1983, portant organisation et fonctionnement de la Commission Nationale pour les Réfugiés en République Centrafricaine	1983-1990
	Decret No. 07.019 du 28 Decembre 2007, portant Statut des Refugies en Republique Centrafricaine	2007-2017
	Decret No. 09.001 du 6 Janvier 2009, portant organisation et fonctionnement des organes de mise en A[U+0093]uvre de la politique nationale relative auc refugies	2009-2017

S.1

Table S.1, continued: National Laws and Policies on Forced Migration

Country	Law	Years
Chad	Décret portant création, organisation et attributions de la Commission Nationale d'Accueil, de Réinsertion	2011-2017
Comoros	Loi nÂ° 88-025 du 29 décembre 1988 portant modification de la loi nÂ° 82-026 relative aux conditions d'entrée et de séjour des étrangers aux Comores	1988-2017
Cote D'Ivoire	Loi No. 90-437 du 29 mai 1990 relative a l'entrée au séjour des etrangers en Cote d'Ivoire	1990-2017
Cyprus	Aliens and Immigration Law, Cap. 105	1952-2017
	Aliens and Immigration Regulations	1972-2017
	The Refugee Law of 2000: A Law to provide for the recognition of refugees and for the better Implementation of the Convention relating to the Status of Refugees	2000-2017
	The Refugee Regulations of 2002	2002-2017
Democratic Republic of the Congo	Ordonnance 87-281 portant mesures d'exÃ©cution de l'ordonnance- loi 83-033 du 12 septembre 1983 relative Ã la police des Ã©trangers.	1987-2017
	Law no. 021/2002 ?Portant statut des rÃ©fugie?s en RÃ©publique DÃ©mocratique du Congo?	2002-2017
Djibouti	Ordonnance No. 77053/PR/AE portant statut des refugiÃ©s sur le sol de la RÃ©publique de Djibouti	1977-2017
	Décret. No. 77-054/PR/AE du 1977 portant création de la commission nationale d'éligibilité au statut des réfugiés	1977-2001
	DÃ©cret No 78-020/PR portent crÃ©ation d?un ComitÃ© National d?Assistance aux rÃ©fugiÃ©s et aux sinistrur	1978-2017
	Décret No. 2001-0101/PR/MI modifiant le décret No. 77-054/PR/AE du 1977 portant création de la commission nationale d'éligibilité au statut des réfugiés	2001-2017
	Loi NÂ°159/AN/16/7Ãšme L portant statut des rÃ©fugiÃ©s en RÃ©publique de Djibouti.	2017
	DÃ©cret NÂ° 2017-409/PR/MI fixant les rÃ¨gles de procÃ©dure, les modalitÃ©s d'organisation et de fonctionnement des organes chargÃ©s de la gestion du statut des réfugiés	2017
	DÃ©cret NÂ° 2017-410/PR/MI fixant les modalitÃ©s d'exercice des droits fondamentaux des rÃ©fugiÃ©s et demandeurs d'asile en RÃ©publique de Djibouti	2017
Egypt	Presidential Decree No. 89 of 1960 on the Residency and Entry of Foreigners	1960-2005
	Presidential Decree No. 331-1980	1980-2017
	Law 88/2005 on Entry, Residence and Exit of Foreigners	2005-2017
Eritrea	Regulation No. 4/1992 of 1992 of Travel Documents and Immigration	1993-2017
Ethiopia	Proclamation regulating the Issuance of Travel Documents and Visas, and Registration of Foreigners in Ethiopia, No. 271 of 1969	1969-2003
	Issuance of Travel Documents and Visas Regulations 1971	1971-2003
	Immigration Proclamation No. 354/2003	2003-2017
	Refugee Proclamation No. 409/2004	2004-2017
Gabon	Ordonnance No. 64/1976 du 1976, créant une Délégation générale aux réfugiés	1976-1998
	Loi no 5/98 du 5 mars 1998 portant statut des rÃ©fugiÃ©s en RÃ©publique gabonaise	1998-2017
	DÃ©cret no 000646/PR/MAEFC portant attributions, organisation et fonctionnement de la Sous-Commission d?EligibilitÃ©	2000-2017
	DÃ©cret no 000647/PR/MAEFC portant attributions, organisation et fonctionnement du Bureau de Recours de la Commission Nationale pour les RÃ©fugiÃ©s	2000-2017
	DÃ©cret no 000648/PR/MAEFC portant attributions, organisation et fonctionnement de la Commission Nationale pour les RÃ©fugiÃ©?s	2000-2017
	Arrete No 1145 PM/MAECF Instituant la carta d'identitÃ© de rÃ©fugiÃ© et fixant ses modalitÃ©s de dÃ©livrance et de renouvellement	2004-2017
The Gambia	Act No. 2 of 1965	1965-2017
	Refgee Act, 2008	2008-2017
Georgia	Law of Georgia on Refugees	1998-2011
	Law of Georgia on Refugee and Humanitarian Status	2011-2017
	Law of Georgia on International Protection	2017
Ghana	Aliens Act, 1963 (Act 160)	1963-1992
	Refugee Law, 1992	1992-2017
Guinea	Ordonnance no 054/PRG/SG/87 du 22 juillet 1987 portant conditions d'entrée et de séjour des étrangers en République de Guinée	1987-1994
	Loi No. L/9194/019/CTRN du 1994 portant sur les conditions d'entrée et de séjour des étrangers en République de Guinée	1994-2017
	Loi L/2000/012/AN Adoptant Et Promulguant le Statut Des Refugies En Republique De Guinee	2000-2017
Guinea Bissau	Lei No. 6/2008 de 2008, Aprovado o Estatuto do Refugiado	2008-2017
India	The Foreigners Act of 1946	1951-2017
	The Illegal Migrants (Determination by Tribunals Act of 1983	1983-2017

Table S.1, continued: National Laws and Policies on Forced Migration, continued

Country	Law	Years
Iran	Regulations Relating to Refugees	1963-2017
Iraq	The Refugee Law No. 114/1959	1959-1971
	The Political Refugee Act No. 51	1971-2003
	Law 21 of 2010	2010-2017
Israel	Law No. 5712-1952	1952-2017
	Prevention of Infiltration (Offenses and Jurisdiction) Law	1954-2017
Jordan	Law No. 24 of 1973 on Residence and Foreigners' Affairs	1973-2017
Kazakhstan	Decree of 19 June 1995 on Legal Status of Foreigners	1995-2017
	Presidential Decree On Granting of political asylum. as of 15 July 1996	1996-2009
	Law of the Republic of Kazakhstan of 13 December 1997 No. 204-1 on Population Migration	1997-2002
	The Law of the Republic of Kazakhstan On Refugees	2009-2017
	Law No. 477-IV of 22 July 2011 on Migration	2011-2017
	Government Decree No. 148 of 21 January 2012	2012-2017
Kenya	Kenya Immigration Act	1967-2010
	Aliens Restriction Act	1973-2010
	The Refugee Act, 2006	2006-2017
	The Refugees Act Regulations	2009-2017
	The Kenya Citizenship and Immigration Act No. 12 of 2011	2011-2017
	The Refugees Bill, 2016	2017
Kuwait	Amiri Decree No. 17 of 1959 issuing the Aliens Residence Law	1959-2017
Kyrgyzstan	Act of 14 December 1993 on the order for residence of aliens in the Kyrgyz Republic.	1993-2002
	Resolution of the Government of the Kyrgyz Republic No. 340 of 1996	1996-2002
	The Law of the Kyrgyz Republic on Refugees	2002-2017
	Regulations of 2003 Governing the Work with Refugees in the Kyrgyz Republic	2003-2017
Lebanon	Law Regulating the Entry of Foreign Nationals Into, Their Residence in and Their Departure From Lebanon	1962-2017
Lesotho	Aliens Control Act of 1966	1966-2017
	The Refugee Act of 1983	1983-2017
Liberia	Aliens and Nationality Law	1973-2017
	Refugee Act, 1993	1993-2017
Libya	Law No. (17) of 1962 on the entry, residence, and exit of foreigners in Libya	1962-1987
	Law No. (6) of 1987 on organising the entry, residence, and exit of foreigners in Libya	1987-2017
	Law nÂ°19 of 2010 related to the combating of irregular migration	2010-2017
Madagascar	Loi No. 1962-006 fixant l'organisation et le contrÃ´le de l'immigration	1962-2017
	Décret No. 1962-001 du 1962 portant création d'un bureau des réfugés et apatrides au MinistÃ¨re de l'Intérieur (Direction de la Sécurité Nationale)	1962-2017
Malawi	Immigration Act of 1964	1964-2017
	Immigration Regulations of 1968	1968-2017
	Refugee Act, 1989	1989-2017
	Refugee Regulations, 1990	1990-2017
Maldives	The Maldives Immigration Act	2007-2017
Mali	Loi No. 1998-40 du 1998 portant sur le statut des réfugés	1998-2017
Mauritania	Decret No. 64.169 du 12/12/64 Portant regime de l'immigration en Republique Islamique de Mauritanie	1964-2017
	Décret nÂ° 2005-022 du 3 mars 2005 fixant les modalités d'application en République islamique de Mauritanie des conventions internationales relatives aux réfugiés	2005-2017
Mauritius	Immigration Act 13 of 1970	1970-2017
Morocco	Décret No. 2-57-1256 du 2 safar 1377 (29 aoÃ»t 1957) fixant les modalités d'application de la convention relative au statut des réfugiés signée Ã GenÃ¨ve le 28 juillet 1951	1957-2017
	Dahir nÂ° 1-03-196 du 16 ramadan 1424 (11 novembre 2003) portant promulgation de la loi nÂ° 02-03 relative Ã l'entrÃ©e et au sÃ©jour des Ã©trangers au Royaume du Maroc, a? l'Ã©migration et l'immigration irrÃ©guliÃ¨res	2003-2017
Mozambique	Act No. 21/91 of 31 December 1991	1991-2017
	Decree 33/2007 on the Regulation on the determination of refugee status	2007-2017
Namibia	Immigration Control Act	1993-2017
	Namibia Refugees (Recognition and Control) Act of 1999	1999-2017

Table S.1, continued: National Laws and Policies on Forced Migration, continued

Country	Law	Years
Nepal	Foreigners Act	1958-1992
	The Immigration Act , 2049	1992-2017
	Immigration Rules, 1994	1994-2017
	Immigration Procedure, 2008	2008-2017
Niger	Ordinance nÂ°81-40 of 29 October 1981 related to the entry and stay of foreign nationals in Niger	1981-1987
	Décret nÂ° 87/076/PCMS/MI/MAE/C du 10 juin 1987 réglementant les conditions d'entrée et de séjour des étrangers au Niger	1987-2017
	Loi no 97-16 du 20 juin 1997 portant statut des réfugiés	1997-2017
	Décret No. 98-382/PRN/MI/AT du 1998 déterminant les modalités d'application de la Loi No. 97-016 du 1997 portant statut des réfugiés	1998-2017
	Loi No. 142/MI/SP/D/AR/DEC-R accordant le benefice du statut de refugis prima facies au Niger, aux Maliens victimes du conflit arme du nord Mali	2012-2017
	Loi No. 806/MI/SP/D/AC/R/DEC-R du 04 Dec 2013 accordantle statut temporaire de réfugiésÂ des ressortissantsdu Nord-Est du Niqéria	2013-2017
Nigeria	Immigration (Control of Aliens) Act (L.N. 94 of 1963) (Chapter 171)	1963-2015
	Immigration (Control of Aliens) Regulations	1963-2015
	National Commission for Refugees (Establishment, Etc.) Act	1989-2017
	Immigration Act, 2015	2015-2017
Oman	Decision No. 63 of 1996 Issuing the Implementing Regulations of the Foreign Residency Law No. 16 of 1995	1996-2017
	Foreigners' Residence Law	1995-2017
Pakistan	Foreigners Act of 1946	1951-2017
	Foreigners Order of 1951	1951-2017
Puntland	Puntland Refugee Protection Act	2017
Qatar	Law No. 3 of 1963 Regulating the Entry and Residence of Aliens in Qatar	1963-2009
	Law No. 4/2009 Regulating Expatriates? Entry, Exit, Residence and Sponsorship	2009-2016
	Law No. 21/2015 Regulating the Entry, Exit, and Residence of Expatriates	2016-2017
Republic of the Congo	Loi No. 36-60 du juillet 1960, relative aux conditions d'entrée et de séjour des etrangers sur le Territoire de la République Populaire du Congo	1960-1972
	Decret No. 72-116 du 10 avril 1972, reglementant l'admission des etrangers dans la Republique Populaire du Congo	1972-1996
	Ordonnance No. 15-72 du 10 avril 1972, modifiant la loi No. 36-60 du juillet 1960, relative aux conditions d'entrée et de séjour des etrangers sur le Territoire de la Republique Populaire du Congo	1972-1996
	Loi 23-96 du 6 Juin 1996 fixtant les conditions d'entrée, de séjour et de sortie des etrangers	1996-2017
	Decret No. 221310 Du 31 Décembre 1999 portant creation, attributions, organisation et fonctionnement du comite national d'assistance aux refugis	2000-2017
	Arete No. 8040 du 28 Decembre 2001 portant creation, attributions,organisation et fonctionnement des recours des refugis	2001-2017
	Arete No. 8041 du 28 Decembre 2001 portant creation, organisation, attributions et fonctionnement de la commission d'eligibilite au statut de refugie	2001-2017
	Loi nÂ° 29-2017 du 7 aoÃ»t 2017 modifiant et complÃ©tant certaines dispositions de la loi nÂ° 23-96 du 6 juin 1996 fixant les conditions d'entrÃ©e, de sÃ©jour et de sortie des Ã©trangers en RÃ©publique du Congo	2017
Rwanda	Loi du 15 octobre 1963 relative Ã l'immatriculation des étrangers	1963-1999
	Loi du 1963 portant sur la police de l'immigration et les conditions d'entrée et de séjour des étrangers dans la République rwandaise	1963-1999
	Law No. 17/99 of 1999 on Immigration and Emigration	1999-2011
	Law No. 34/2001 of 05/07/2001 Relating to Refugees	2001-2014
	Law No. 29/2006. of 20/07/2006 Modifying and Complimenting Law No. 34/2001 of 05/07/2001 Relating to Refugees	2006-2014
	Law No. 04/2011 of 21/03/2011 on Immigration and Emigration in Rwanda	2011-2017
	Law No. 13ter/2014 of 21/05/2014 Relating to Refugees	2014-2017
Saudi Arabia	The Residence Regulations	1952-2017
Senegal	Loi No. 68-27 du 1968 portant statut des réfugiés	1968-2017
	Décret relatif Ã la Commission des Réfugiés	1976-2003
	Decret nÂ° 2003-291 du 8 mai 2003 portant création du Comité national chargé de la situation des réfugiés, rapatriés et personnes déplacées	2003-2017
Seychelles	Law of Seychelles Chapter 93 Immigration Decree	1979-2017
Sierra Leone	The Non-Citizens (Registration, Immigration and Expulsion) Act, 1965	1965-1980
	The Refugees Protection Act, 2007	2007-2017
Somalia	Somalia Presidential Law No. 47 of 15 July 1979	1979-1984
	Presidential Decree No. 25 of 1984, on Determination of Refugee Status	1984-1991
Somaliland	The 1984 Refugee Status as applied in Somaliland	1991-2017
	Law No. 72 of 27 November 1995	1995-2017
South Africa	Aliens Act 1 of 1937	1951-1991
	Aliens Control Act, No. 96 of 1991	1991-2002
	Regulations to the Aliens Control Act	1996-2002
	Refugees Act, 1998	1998-2017
	Regulations to the South African Refugees Act	2000-2017

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Table S.1, continued: National Laws and Policies on Forced Migration, continued

Country	Law	Years
South Sudan	Act No. 20 of 2012	2012-2017
	Refugee Status Eligibility Regulations	2017
Sri Lanka	Immigrants and Emigrants Act	1951-2017
Sudan	The Regulation of Asylum Act No. 45 of 1974	1974-2014
	The Asylum Regulation Act, 2014	2014-2017
Swaziland	King's Order-in-Council No. 5 of 1978	1978-2017
Syria	Legislative Decree No. 29 of 15 January 1970 - The Entry and Exit of Aliens to and from the Syrian Arab Republic and Their Residence Therein	1970-2014
	Entry, Exit, and Residence in Syria Act of 2014	2014-2017
Tajikistan	Law of the Republic of Tajikistan on Refugees of 1994	1994-2002
	Law of the Republic of Tajikistan on Refugees of 2002	2002-2017
Tanzania	War Refugees (Control and Expulsion) Ordinance	1951-1965
	Refugees (Control) Act	1966-1998
	The Refugees Act, 1998	1998-2017
Togo	Loi no. 1987-12 relative Ã la police des étrangers	1987-2017
	Loi No. 2000-019 Portant Statut des Refugies au Togo	2000-2017
Tunisia	Loi nÂ° 1968-0007 du 8 mars 1968, relative a la condition des Ã©trangers en Tunisie	1968-2017
	Décret No. 1968-198 du 1968, réglementant les conditions d'entrée et de séjour des étrangers en Tunisie	1968-2017
Turkey	Law on Settlement	1951-2006
	Settlement Law	2006-2017
	Law on Foreigners and International Protection	2013-2017
	Temporary Protection Regulation	2014-2017
Turkmenistan	Law of Turkmenistan on Refugees of 1997	1997-2011
	Law of Turkmenistan on Refugees of 2012	2012-2017
Uganda	Control of Refugees from the Sudan Ordinance	1955-1960
	Control of Alien Refugees Act, Cap.64 of 1960	1960-2006
	The Refugees Act, 2006	2006-2017
	The Refugees Regulations, 2010	2010-2017
United Arab Emirates	Federal Law No. 6 for 1973 Concerning Immigration and Residence	1973-1996
	Federal Law No (13) for 1996 Concerning "Aliens Entry and Residence"	1996-2017
Uzbekistan	Regulations on Entry to and Exit From the Republic of Uzbekistan for Foreign Citizens and Stateless Persons	1996-2017
	Rules on Residence for Foreign Citizens and Stateless Persons	1996-2017
	Regulation on the Procedure for Granting Political Asylum in the Republic of Uzbekistan	2017
Yemen Arab Republic	1984 Ministerial Resolution No 10	1984-1990
Yemen	1984 Ministerial Resolution No 10	1990
	Law on the Entry and Residence of Aliens	1991-2017
Zambia	Refugees (Control) Act, 1970	1970-2017
	Refugees (Control) (Declaration of Refugees) (No. 2) Order 1971	1971-2017
	The Refugees Act, 2017	2017
Zimbabwe	Chapter 4:03 Refugees Act	1983-2017
	Regulations of 1985 on Refugees	1985-2017

Section S.2: DWRAP Codebook

The dataset is divided into five policy fields: access, services, livelihoods, movement, and participation. Each policy field is sub-divided into a number of policy strands, which reflect the most important facets of the policy texts we are coding. We code 68 variables, 14 of which are descriptive and 54 of which are coded within the 14 policy strands and 5 policy fields we outline. Only the 54 policy-relevant variables are included in our index.

- **_country_**: Country name.

- **_ccode_**: Country code from the Correlates of War.

- **_region_**: Indicator of subregion from the United Nations geoscheme. Code 1 for Northern Africa; 2 for Western Africa; 3 for Middle Africa; 4 for Eastern Africa; 5 for Southern Africa; 6 for Western Asia; 7 for Central Asia; 8 for Southern Asia.

- **_pol_ name_**: Formal or official name of a law or policy.

- **_other_ name_**: Informal or unofficial name or abbreviation of a law or policy. For example, the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa is often referred to as the Kampala Convention. In this case, *other_name* would be the Kampala Convention.

- **_year_**: Year that a law or policy text was passed or adopted by the relevant parties.

- **_level_**: Indicator for the level of a law or policy. Code 1 for binding international laws, treaties, and agreements, including those that are not yet in force, but which will become binding once the conditions for entry into force are met; 2 for regional laws, treaties, and agreements, such as those entered by regional international organizations; and 3 for domestic laws, such as national constitutions and laws passed by national legislative bodies that apply to the entirety of the national territory.

- **_intl_**: Dichotomous indicator capturing whether a law or policy is international or domestic. Code 0 if *level* is 3; 1 if *level* is 1 or 2.

- **_colony_**: Dichotomous indicator for whether the relevant law or policy was passed by the colonial or protectorate government of a state. Code 0 for no; 1 for yes. All 0s indicate that the country in question passed the law as an independent state.

- **_asylee_**: Dichotomous indicator capturing whether a law or policy pertains to asylum-seekers. Code 0 for no; 1 if yes.

- **_refugee_**: Dichotomous indicator capturing whether a law or policy pertains to refugees. Code 0 for no; 1 if yes.

- **_stless_**: Dichotomous indicator capturing whether a law or policy pertains to stateless persons. Code 0 for no; 1 if yes.

Access

Status

- **accept**: Does the law or policy annunciate a process for granting subsidiary or humanitarian protection, or relate to such a process already defined? Code 0 if no; 1 if yes.

- **refoul**: Is there an explicitly stated right to non-refoulement? Code 0 if no, there is an explicitly stated provision *for* refoulement; 1 if the law/policy is ambiguous on refoulement, and lacks either a stated provision for refoulement or an explicit right to non-refoulement; 2 if there an explicit right to non-refoulement.

- **excl**: Does the relevant country reserve the right to *deny* status to certain individuals? Code 0 if yes, to any individual; 1 if yes, to individuals who fit exclusionary categories beyond those outlined in the 1951 Convention (i.e. beyond status as a war criminal, perpetrator of serious non-political crimes, or for submitting fraudulent claims); 2 if no, individuals may only be denied status for reasons outlined in the 1951 Convention; 3 if no, individuals may not be denied status for any reason.

- **cease**: Does the relevant country reserve the right to *cease* status recognition for certain individuals? Code 0 if yes, to any individual; 1 if yes, to individuals who fit cessation categories beyond those outlined in the 1951 Convention (i.e. beyond status as a war criminal, perpetrator of serious non-political crimes, if causal conditions cease, or for submitting fraudulent claims); 2 if no, individuals may only have their status ceased for reasons outlined in the 1951 Convention; 3 if no, individuals may not have their status ceased for any reason.

- **pend_rem**: Does the law or policy guarantee the right to remain while determination of status is pending? Code 0 if no, there is no guaranteed right to remain while status is pending; 1 if yes, there is a right to remain subject to conditions on applicants' behavior and movement; 2 if yes, there is an unconditional right to remain while status determination is pending.

- **perm_rem**: Does the law or policy guarantee status recognized individuals the right to remain? Code 0 if no, there is no guaranteed right to remain; 1 if yes, provided other specified conditions for cessation are not met; 2 if yes, unconditionally.

Control

- **unlaw_ent**: Does the law or policy contain a provision exempting individuals from prosecution for unlawful entry? Code 0 if no; 1 if yes, but subject to other entry restrictions (like limits on where individuals may enter); 2 if yes, and without additional limits on entry.

- **monitor**: Does the law or policy contain a provision obliging individuals to check-in with government officers? Code 0 if yes, with local *and* national government officials, or with any officials more frequently than annually; 1 if yes, with local *or* national government officials, or with any officials less frequently than annually; 2 if no.

Family

- **status_fam**: Does the law or policy contain a provision extending status to the family members of recognized individuals? Code 0 if no; 1 if yes.

- **famre**: Does the law or policy contain a provision guaranteeing efforts to reunite separated families? Code 0 if no; 1 if yes, to reunite immediate family members, including parents, spouses, and/or minor children; 2 if yes, to reunite immediate and extended family members including parents, spouses, children, and others.

- **pers_stat**: Does the law or policy contain a provision guaranteeing individuals recognition of their previously acquired personal status and marriage rights? Code 0 if no; 1 if yes.

Recourse

- **court**: Does the law or policy contain a provision guaranteeing court access? Code 0 if no; 1 if yes, generally; 2 if yes, with legal assistance provided.

- **reason**: Does the applicant have a right to a reasoned response in case of a negative status decision? Code 0 if no; 1 if yes, a right to reasoned decision; 2 if yes, a right to reasoned decision *and* additional means of legal recourse.

- **appeal**: Does the applicant have a right to legal redress in case of a negative status decision? Code 0 if no; 1 if yes, a right to appeal; 2 if yes, a right to appeal and to representation before an independent administrative authority or a court.

Services

Education

- **elem_educ**: Does the law or policy contain a provision guaranteeing access to primary and/or pre-primary education? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- **high_educ**: Does the law or policy contain a provision guaranteeing access to secondary and/or post-secondary education? Code 0 if no; 1 if yes, access to secondary education; 2 if yes, access to secondary and post-secondary education.

- **aff_act**: Does the law or policy contain a provision guaranteeing affirmative action admission to educational institutions? Code 0 if no; 1 if yes.

- **relg_educ**: Does the law or policy contain a provision guaranteeing the right to religious education? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- **lang_train**: Does the law or policy contain a provision guaranteeing access to language training? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- **voc_train**: Does the law or policy contain a provision guaranteeing access to vocational training? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

Aid

- ***aid***: Does the law or policy contain a provision for aid or humanitarian assistance to individuals? Code 0 if no; 1 if yes, conditional on residence in designated areas; 2 if yes, unconditionally.

- ***aid_type***: What types of aid are provided? Code 0 if no aid is provided; 1 if food, drinking water, and/or shelter/building materials are provided; 2 if materials are provided *in addition* to food, water, and/or shelter.

- ***soc_sec***: Does the country extend social security—"legal provisions in respect of employment injury, occupational diseases, maternity, sickness, disability, old age, death, unemployment, family responsibilities," etc.—to individuals? Code 0 if no; 1 if yes, conditional on employment or residence in designated areas; 2 if yes, unconditionally.

Health

- ***health***: Does the law or policy provide a right to health care and/or medical access? Code 0 if no; 1 if yes, conditional on specified requirements (e.g. employment or residence in certain areas) ; 2 if yes, unconditionally.

- ***health_cost***: How much does health care cost? Code 0 if health access is not provided, or if individuals are charged a non-zero fee greater than that paid by legal aliens; 1 if individuals are charged a non-zero fee on par with that paid by nationals and/or other aliens; 2 if health care is free of charge.

- ***health_app***: Are there categories of applicants that are to receive special, favorable treatment or consideration for health-related reasons (e.g. the elderly, disabled, pregnant women, or HIV/AIDs-positive individuals)? Code 0 if no; 1 if yes, one category of health-related applicants receive consideration; 2 if yes, two or more categories of health-related applicants receive consideration.

- ***health_rest***: Can applicants be denied entry on the grounds that they have communicable diseases or pose other health concerns? Code 0 if yes, applicants must pass a formal health examination in order to gain entry or status; 1 if yes, applicants are screened visually or asked about their medical history, but a formal health screen is not required; 2 if no, applicants face no specified medical barriers to entry.

Livelihoods

Property

- ***asset***: Does the law or policy contain a provision guaranteeing the right to transfer movable property into and out of the country? Code 0 if no; 1 if yes, subject to some restrictions on the type of property; 2 if yes, without restrictions.

- ***asset_take***: Does the law or policy contain a provision allowing the government to seize property with which individuals enter the country? Code 0 if yes, any property may be seized, or *at least* two of the following—animals, vehicles, and

arms/ammunition—may be seized; 1 if yes, one of the following—animals, vehicles, and arms/ammunition–may be seized; 2 if no, property may not be seized.

- ***asset_comp***: Does the law or policy contain a provision guaranteeing compensation for seized property? Code 0 if no, there is no compensation guaranteed for any seized property; 1 if yes, compensation is guaranteed for some *but not all* categories of seized property; 2 if yes, compensation is guaranteed for *all* seized property, or if property may not be seized in the first place.

- ***move_prop***: Does the law or policy contain a provision guaranteeing the right to own and acquire movable property in the host country? Code 0 if no; 1 if yes.

- ***immv_prop***: Does the law or policy contain a provision guaranteeing the right to own and acquire immovable property in the host country? Code 0 if no; 1 if yes, land *or* fixed buildings; 2 if yes, land *and* fixed buildings.

- ***intel_prop***: Does the law or policy contain a provision guaranteeing individuals' rights to intellectual property? Code 0 if no; 1 if yes.

- ***lease***: Does the law or policy contain a provision guaranteeing individuals the right to lease and/or sublease immovable property in the host country? Code 0 if no; 1 if yes, land *or* fixed buildings; 2 if yes, land *and* fixed buildings.

Land

- ***land***: Does the law or policy contain a provision granting a plot of land for cultivation, grazing, and/or shelter construction? Code 0 if no; 1 if yes, for a limited duration of time and/or subject to conditions on use; 2 if yes, without conditions.

- ***land_let***: Are individuals allowed to let and/or sublet granted land? Code 0 if no, or if individuals are not granted land; 1 if yes, subject to condition and/or government permission; 2 if yes, without conditions.

Employment

- ***employ***: Does the law or policy contain a provision guaranteeing the right to work? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- ***emp_self***: Does the law or policy contain a provision guaranteeing the right to self-employment and/or to start a business? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- ***emp_prof***: Does the law or policy contain a provision guaranteeing the right to work in professional fields provided an individual holds the requisite training or certification? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- ***emp_permit***: Does the law or policy oblige individuals to hold a work permit? Code 0 if yes, and permits cost a fee; 1 if yes, but permits are free; 2 if no, work permits are not required.

- **emp_rest**: Does the law or policy place additional restrictions on individuals in terms of work, including restrictions on which industries they may work in, or where they may work? Code 0 if yes, at least two work restrictions are in place, in addition to any work permit requirement; 1 if yes, at least one work restriction is in place, in addition to any work permit requirement; 2 if no work restrictions are in place, in addition to any work permit requirement.

- **tax**: Does the law or policy contain a provision obliging individuals to pay taxes? Code 0 if yes, generally or unconditionally; 1 if yes, provided the individual is employed or otherwise has income; 2 if no, individuals are not taxed.

Movement

Settlement

- **move**: Does the law or policy contain a provision guaranteeing the right to free movement within the host country? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- **move_cond**: Does the law or policy condition the right to free movement? Code 0 if yes, there is no provision for free movement, or if movement is conditional on government permission *and* at least one other restriction (e.g. national security or health); 1 if yes, conditional on government permission or one other restriction; 2 if no, free movement is unconditional.

- **camp**: Does the law or policy contain a provision for the establishment of transit centers, settlements, or camps? Code 0 if yes, and residence in designated areas is required; 1 if yes, but individuals can live outside designated areas with government permission; 2 if no, designated residence areas are not specified.

Documents

- **docs**: Does the law or policy guarantee an individual travel and identification documents? Code 0 if no; 1 if yes, only for recognized individuals; 2 if yes, for all individuals.

- **docs_pay**: Do travel and identity documents cost a fee? Code 0 if documents are not provided, or if individuals are charged a non-zero fee greater than that paid by legal aliens; 1 if individuals are charged a non-zero fee on par with that paid by legal aliens; 2 if individuals are charged a non-zero fee on par with that paid by nationals; 3 if documents are free of charge.

Citizenship and Participation

Citizenship

- **citizen**: Does the law or policy provide a path to citizenship? Code 0 if no; 1 if no, but a path to permanent residence is provided; 2 if yes.

- ***cit_year***: How many years must an individual reside in the host country in order to be eligible for citizenship? Code 0 if there is no path to citizenship, or if an individual must reside in a country for 30 years or more in order to become eligible for citizenship; 1 if an individual must reside in a country for 15 to 29 years in order to become eligible for citizenship; 2 if an individual must reside in a country for less than 15 years to become eligible for citizenship.

- ***cit_marr***: Can an individual achieve citizenship through marriage to a national? Code 0 if there is no path to citizenship, or if there is no path to citizenship through marraige; 1 if only a non-citizen female may become a citizen by marriage to a male national; 2 if non-citizens of any gender may become citizens by marriage to any national.

- ***cit_birth***: Are the children of non-citizen individuals born in a host country eligible for citizenship? Code 0 if there is no path to citizenship, or if children of non-citizens born in a host country are not eligible for citizenship; 1 if only children born to mixed, non-citizens-national couples are eligible for citizenship; 2 if all children of non-citizens born in a host country may are eligible for citizenship.

- ***cit_unacc***: Are unaccompanied minors in a host country eligible for citizenship? Code 0 if there is no path to citizenship, or if unaccompanied minors are not eligible for citizenship; 1 if unaccompanied minors must be adopted by nationals in order to be eligible for citizenship; 2 if all unaccompanied minors in a host country are eligible for citizenship.

Political Rights

- ***pol_part***: Does the law or policy contain a provision allowing individuals to participate (vote or run) in host country political processes? Code 0 if no; 1 if yes, individuals may participate in special bodies for asylum-seeker/refugee representation; 2 if yes, individuals may participate in ordinary local, state, and/or national political processes.

- ***assoc***: Does the law or policy contain a provision guaranteeing individuals the right to associate? Code 0 if no; 1 if yes generally, or only in labor unions and non-political organizations; 2 if yes, in political and non-political organizations.

Figure S.3: Correlation Matrices

In order to build confidence in our coding and aggregation schema we present correlograms demonstrating that sub-components of the full policy index and each field index are highly correlated. The strong, observed associations between policy provisions and the strands and fields into which we group them lend confidence in the construct validity of our index, and the sensibility of the groupings outlined in Table 2.
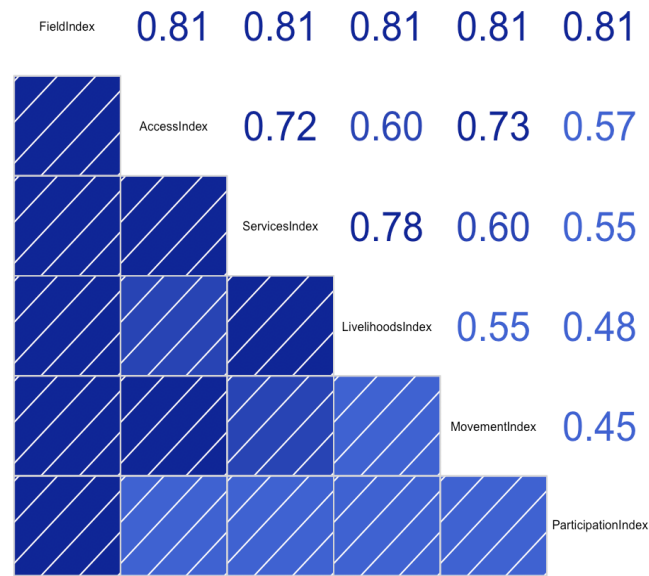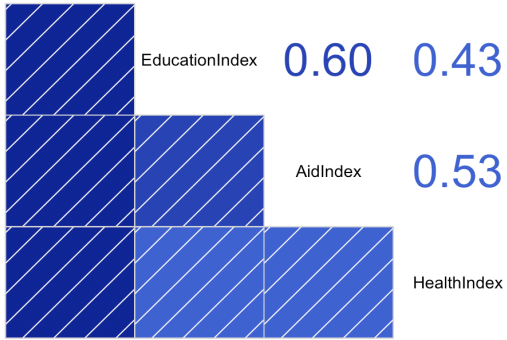

Full Policy Index and Constituent Policy Fields
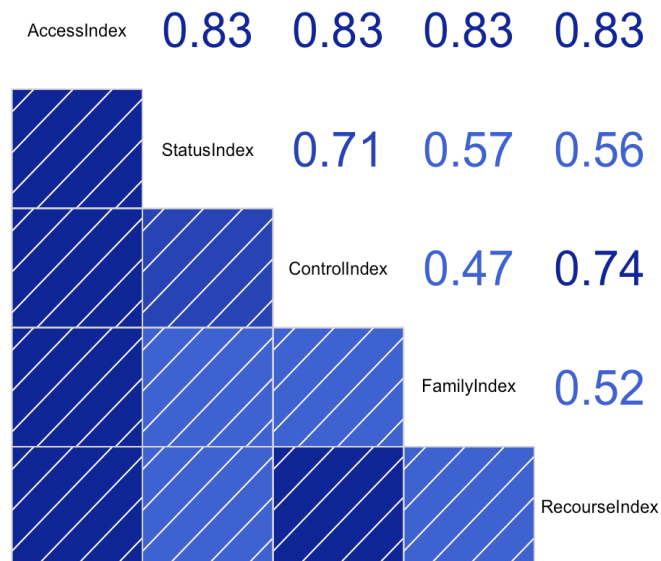
Access Field Index and Constituent Policy Strands
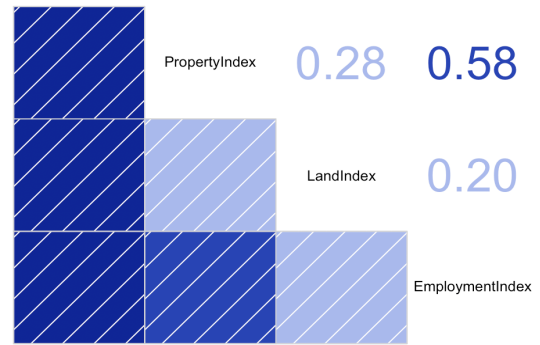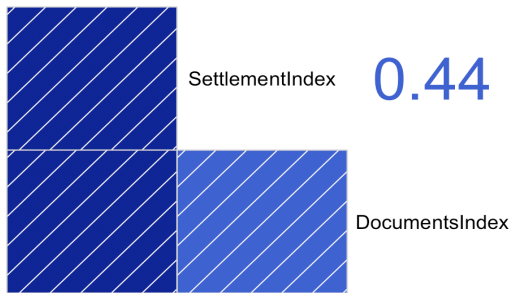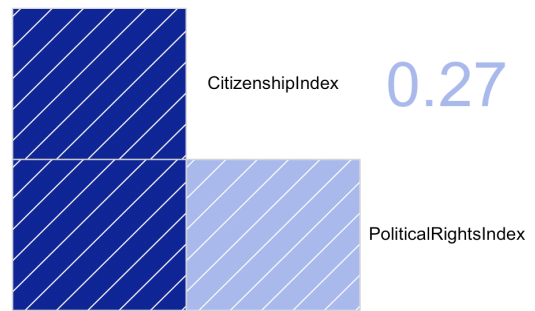
Services Field Index and Constituent Policy Strands

Livelihoods Field Index and Constituent Policy Strands

Movement Field Index and Constituent Policy Strands

Participation Field Index and Constituent Policy Strands

Table S.4: Principal Component Analyses

We use inverse-covariance weighted summary indices (Anderson, 2008) to collapse our variables into policy strands, fields, and an overall policy score. We take this approach because there are strong a priori theoretical reasons to expect certain policy dimensions to emerge. Our coding scheme was built around existing indices like MIPEX and IMPIC, which have demonstrated that the policy strands and fields we code emerge in migration laws. Nevertheless, an alternate aggregation strategy, principal component analysis (PCA), gives a substantively similar decomposition of the variables. Specifically, PCA collapses the 54 variables we code to 13 factors that correspond to our 14 policy strands. Our education and political rights strands are collapsed into a single factor in the PCA. Our policy strands are highly correlated with the 13 factors identified in the PCA.

Table S.4: Factors Based on Principal Component Analyses

	Eigenvalue	Difference	Proportion	Cumulative	Corresponding Policy Strand(s)
Factor 1	17.96364	13.10685	0.3327	0.3327	Control
Factor 2	4.85679	2.00838	0.0899	0.4226	Status
Factor 3	2.84841	0.15729	0.0527	0.4753	Health, Aid
Factor 4	2.69112	0.51823	0.0498	0.5252	Citizenship
Factor 5	2.17289	0.13516	0.0402	0.5654	Employment
Factor 6	2.03773	0.40787	0.0377	0.6032	Property
Factor 7	1.62985	0.11328	0.0302	0.6333	Land
Factor 8	1.51658	0.04877	0.0281	0.6614	Property
Factor 9	1.46780	0.19803	0.0272	0.6886	Settlement
Factor 10	1.26978	0.09331	0.0235	0.7121	Recourse
Factor 11	1.17646	0.11384	0.0218	0.7339	Family
Factor 12	1.06263	0.02843	0.0197	0.7536	Education, Pol. Rights
Factor 13	1.03419	0.18051	0.0192	0.7727	Documents

LR Test: $Chi^2(1431) = 370000$ Prob>$Chi^2 = 0.0000$

Section S.5: Universal Periodic Review Excerpts

The following passages are excerpted from UNHCR submissions to the Universal Periodic Review (UPR), and demonstrate the usefulness of these reports for mapping the national policy space on forced migration.

- "The Republic of Angola is a signatory to the **1951 Convention relating to the Status of Refugees** (ratified on 31 January 1976, with reservations), the **1967 Protocol relating to the Status of Refugees** (acceded on 23 June 1981) and the 1969 **OAU Convention governing the specific aspects of refugee problems in Africa** (acceded to on 30 April 1981). ... **Article 29 of the Foreigners Act (Lei sobre o Regime Juridico dos Estrangeiros na Republica de Angola)** provides safeguards against the expulsion of refuges to countries where they may be persecuted for political, racial or religious reasons, or where their lives may be in danger. The same article guarantees refugees 'the most favourable treatment under the law or international agreements to which Angola is party'. Despite these protections, refugees and asylum-seekers remain vulnerable in Angola."

   – UNHCR Submission to the UPR for the Angola Second Cycle

- "The Democratic Republic of Congo (DRC) is a State party to the **1951 Convention relating to the Status of Refugees and its 1967 Protocol with no reservations**. The DRC is also a State party to the **1969 Convention Governing the Specific Aspects of Refugee Problems in Africa (OAU Convention)**. Most of the refugees currently residing in the DRC have been recognized as refugees on a prima facie basis, pursuant to Article 1.2 of the OAU Convention. ... The current asylum system was established by **Law no. 021/2002 'Portant statut des refugies en Republique Democratique du Congo'** (the Refugee Law) on 16 October 2002. The Refugee Law created the National Commission for Refugees which is responsible for examining requests for asylum on a case-by-case basis."

   – UNHCR Submission to the UPR for the DRC Second Cycle

- "The Republic of South Sudan ('South Sudan') ... **has not acceded** yet to neither the **1951 Convention relating to the Status of Refugees and its 1967 Protocol** ... nor the **1969 OAU Convention Governing the Specific Aspects of Refugee Problems in Africa** ... South Sudan adopted the **2012 Refugee Act**, which, among other positive aspects, (a) **incorporates the refugee definition** established by the 1951 Convention and 1969 OAU Convention, and expressly **grants asylum for persecution on the grounds of tribe and gender discriminating practices**; (b) guarantees the enjoyment of the rights set out in Part Two (the ?bill of rights?) of the 2011 Transitional Constitution of the Republic of South Sudan; (c) **entitles refugees to seek employment**; (d) **provides access to the same basic health services and primary education as nationals of South Sudan**. ... Prima facie RSD mechanisms and the provision of temporary protection to a specific group are established in Section 30 of the 2012 Refugee Act."

    – UNHCR Submission to the UPR for the South Sudan Second Cycle

Figure S.6: Policy Scores Over Time in Africa
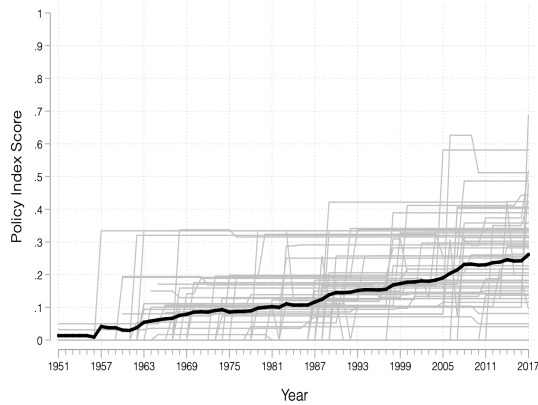
Policy Index Over Time in Africa
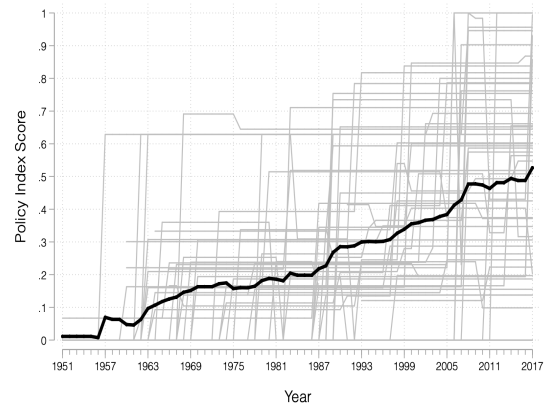
Access Index Over Time in Africa

Services Index Over Time in Africa

Livelihoods Index Over Time in Africa
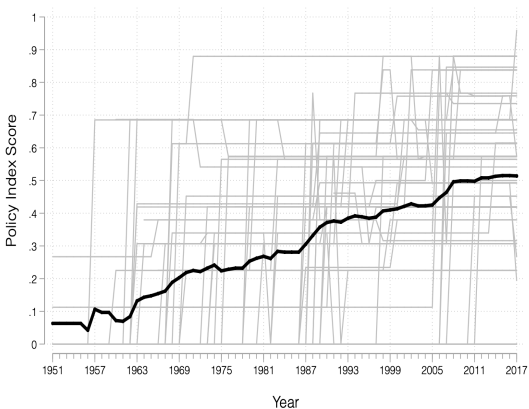
Movement Index Over Time in Africa
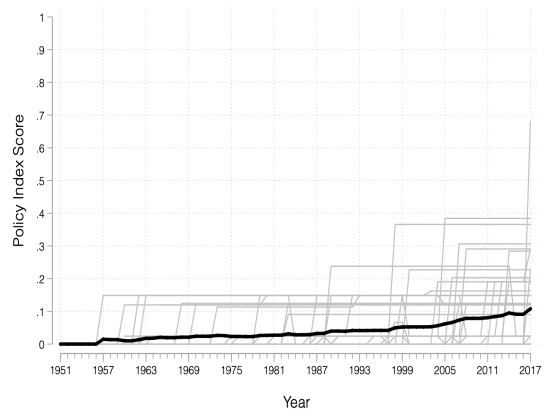
Participation Index Over Time in Africa

Note: Light gray lines represent individual country scores over time, and the thick black line captures the average index score for all DWRAP countries over time.

Figure S.7: Policy Scores Over Time in the Middle East
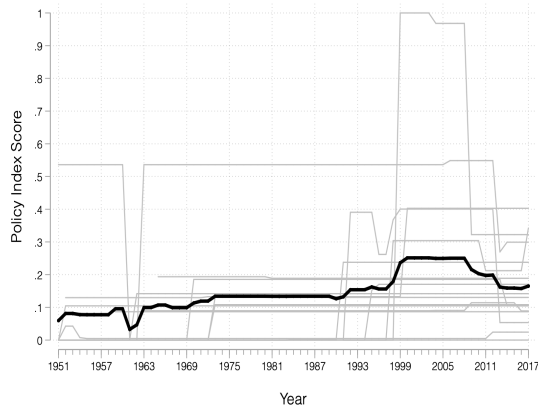
Policy Index Over Time in ME
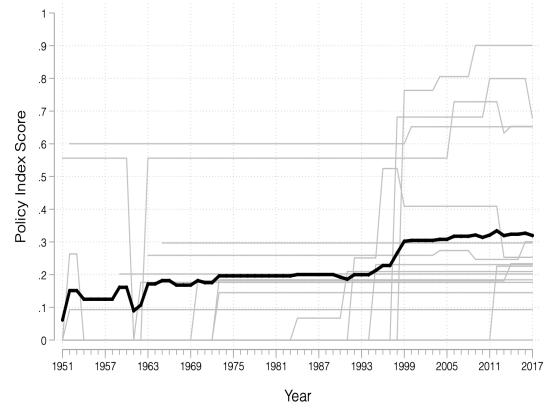
Access Index Over Time in ME
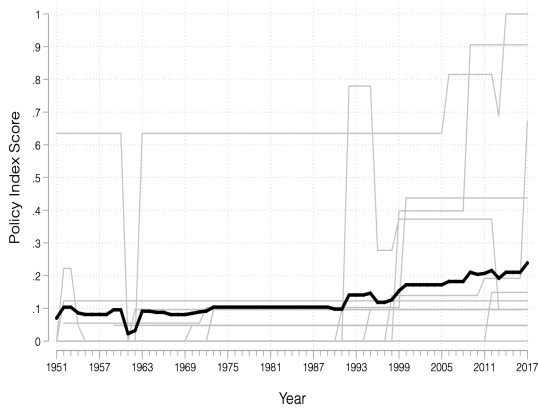
Services Index Over Time in ME
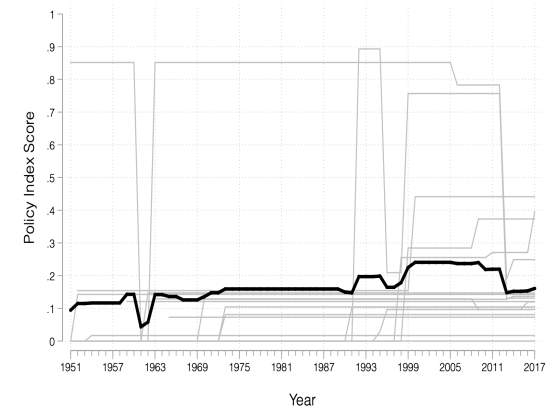
Livelihoods Index Over Time in ME
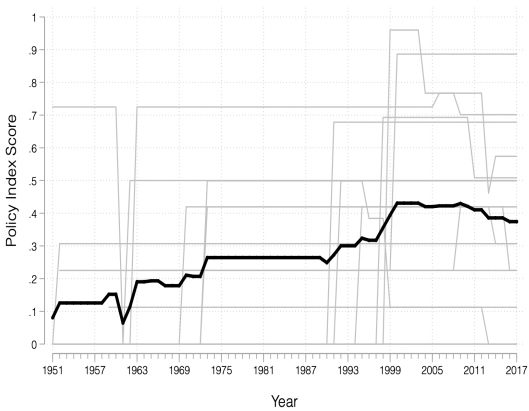
Movement Index Over Time in ME
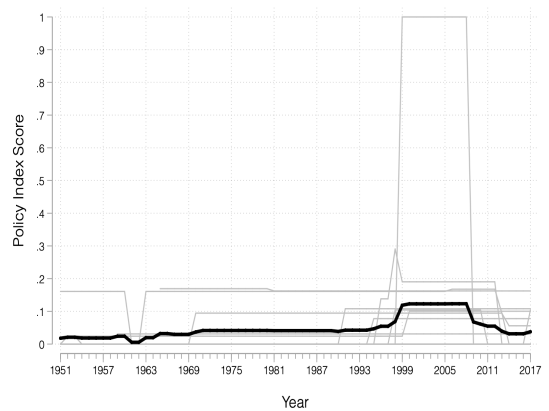
Participation Index Over Time in ME

Note: Light gray lines represent individual country scores over time, and the thick black line captures the average index score for all DWRAP countries over time.
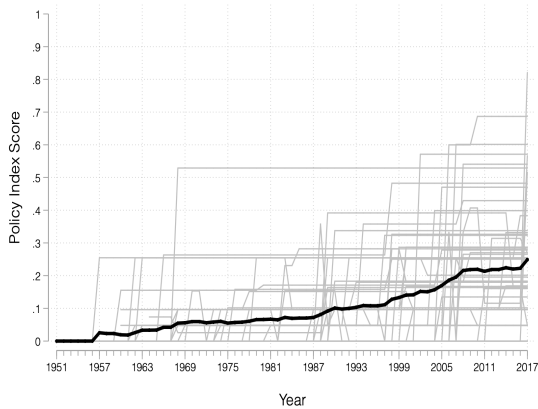
Figure S.8: Policy Scores Over Time in South Asia
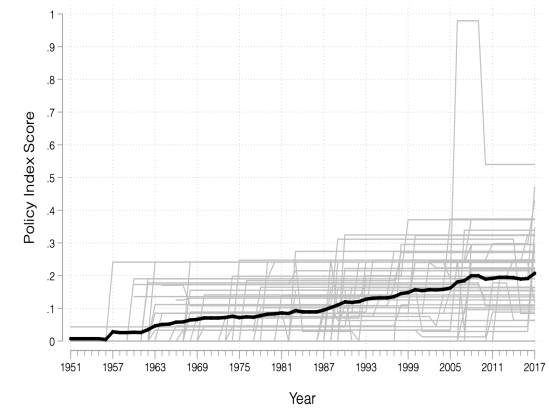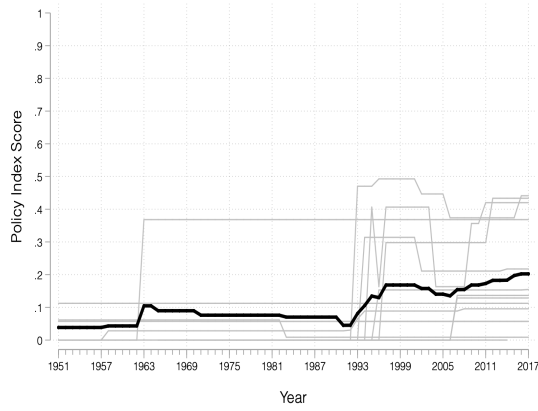

Policy Index Over Time in S. Asia
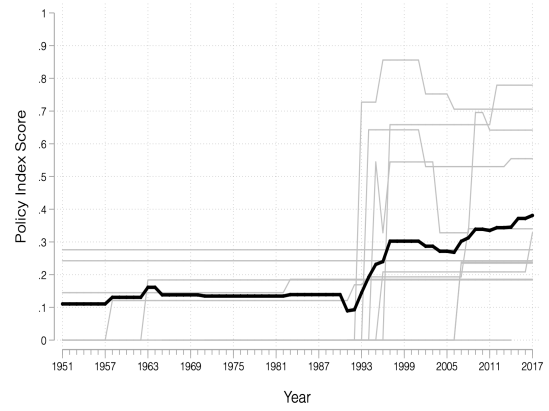
Access Index Over Time in S. Asia
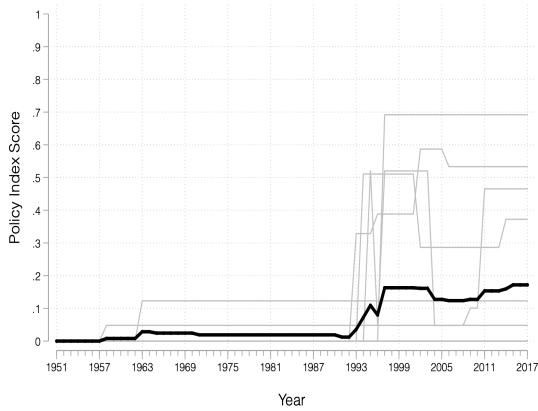
Services Index Over Time in S. Asia
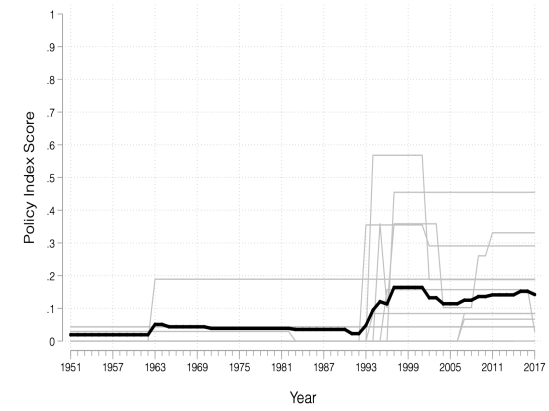
Livelihoods Index Over Time in S. Asia
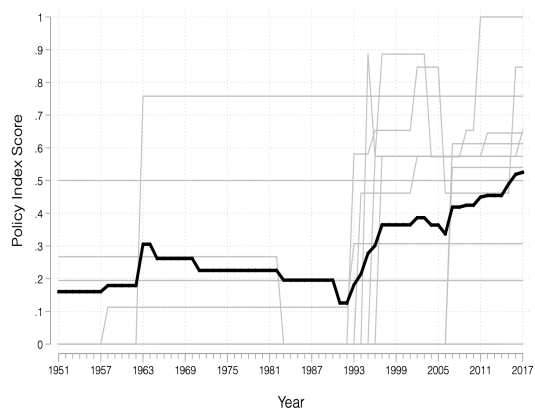
Movement Index Over Time in S. Asia
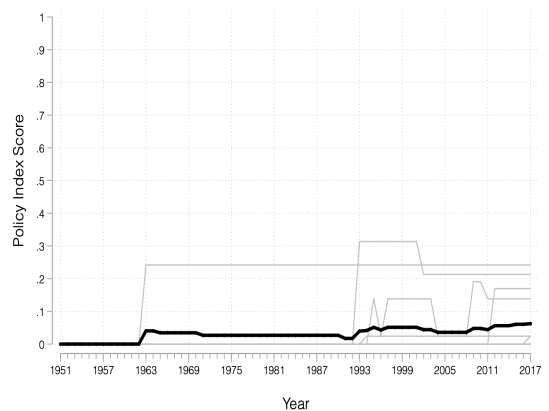
Participation Index Over Time in S. Asia

Note: Light gray lines represent individual country scores over time, and the thick black line captures the average index score for all DWRAP countries over time.

Figure S.9: Asylum Policy Over Time in North, Central, and South African Countries
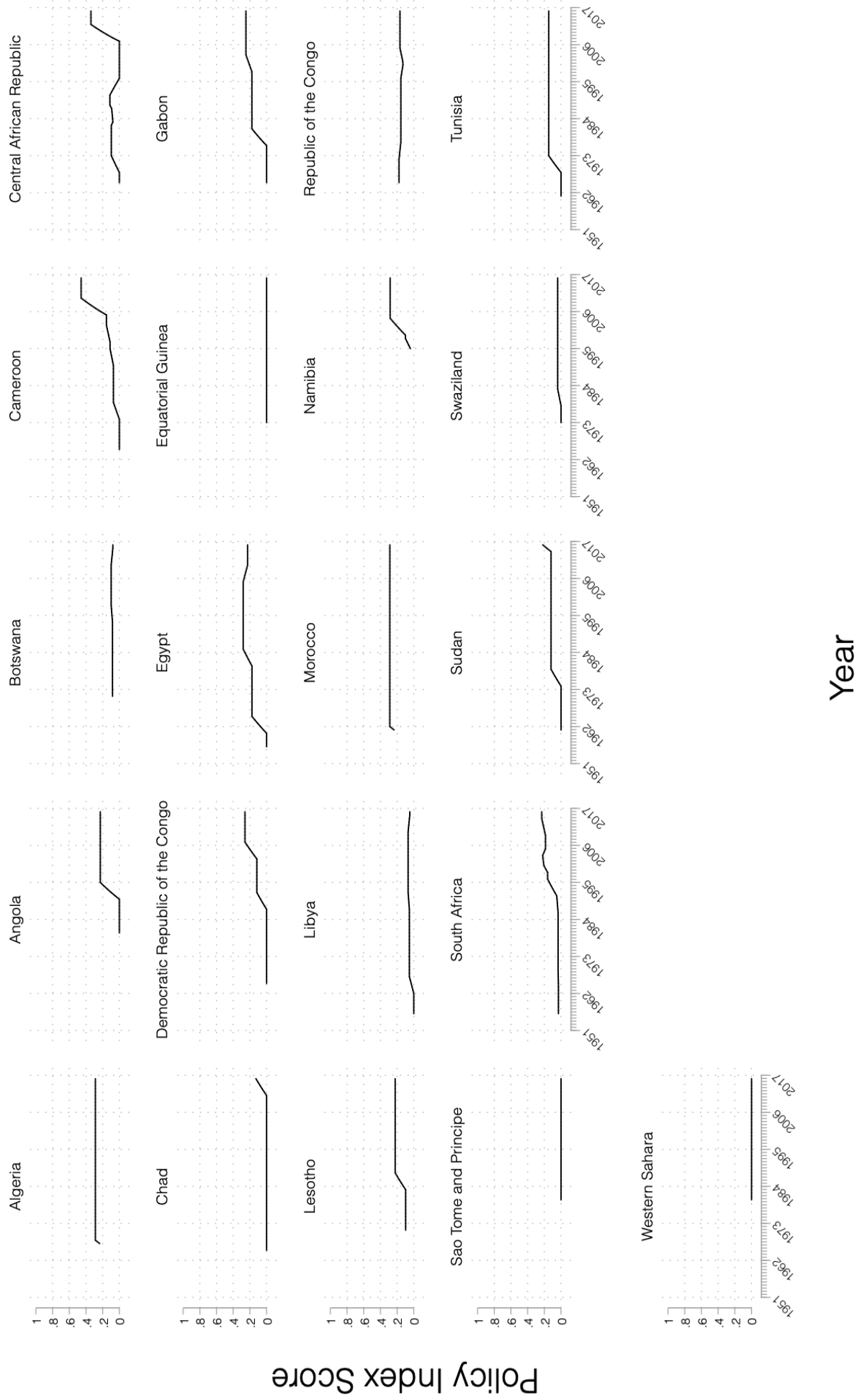
Figure S.10: Asylum Policy Over Time in East and West African Countries

Policy Index Score

Year
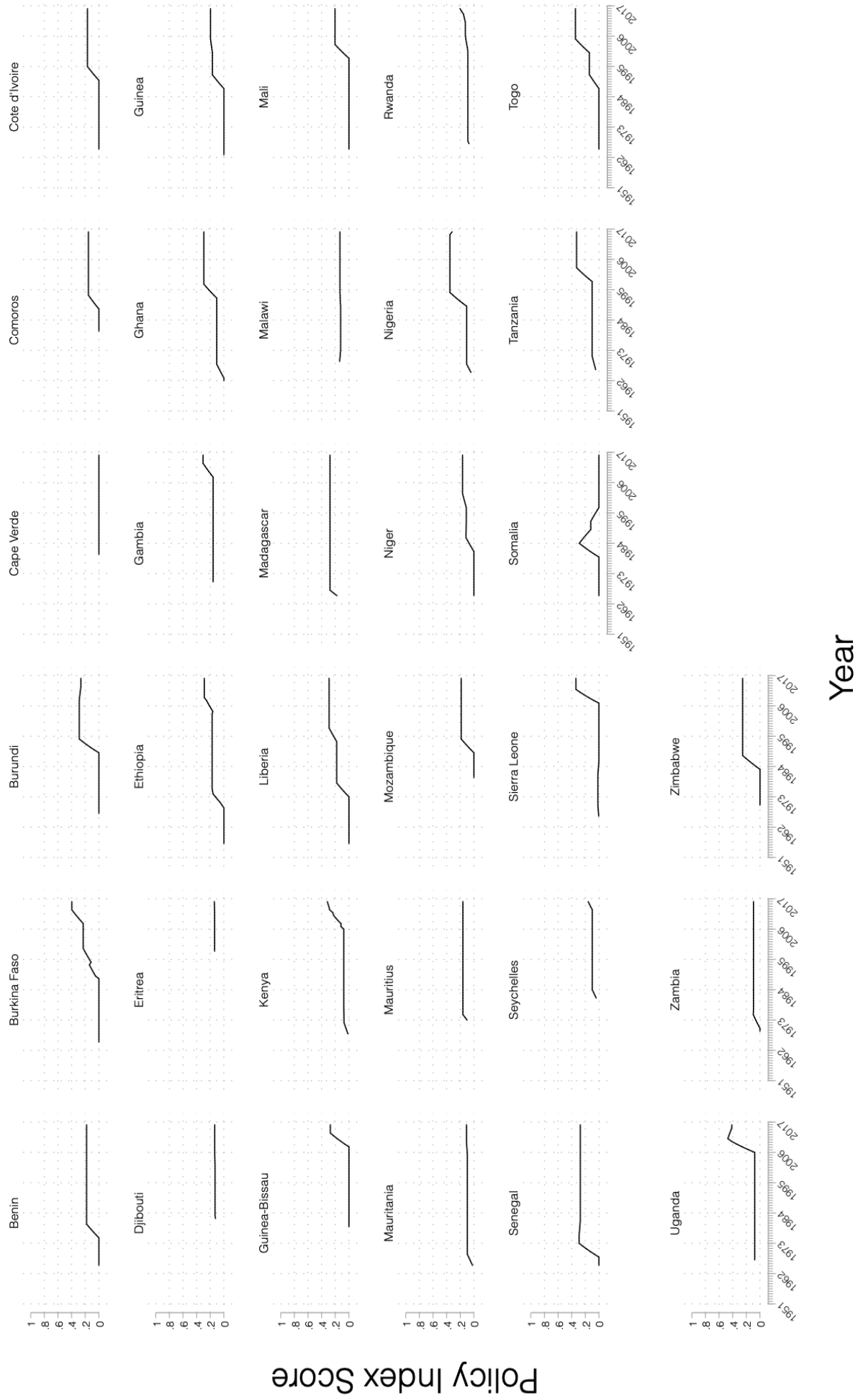
Figure S.11: Asylum Policy Over Time in Middle Eastern and West Asian Countries

Policy Index Score

Year
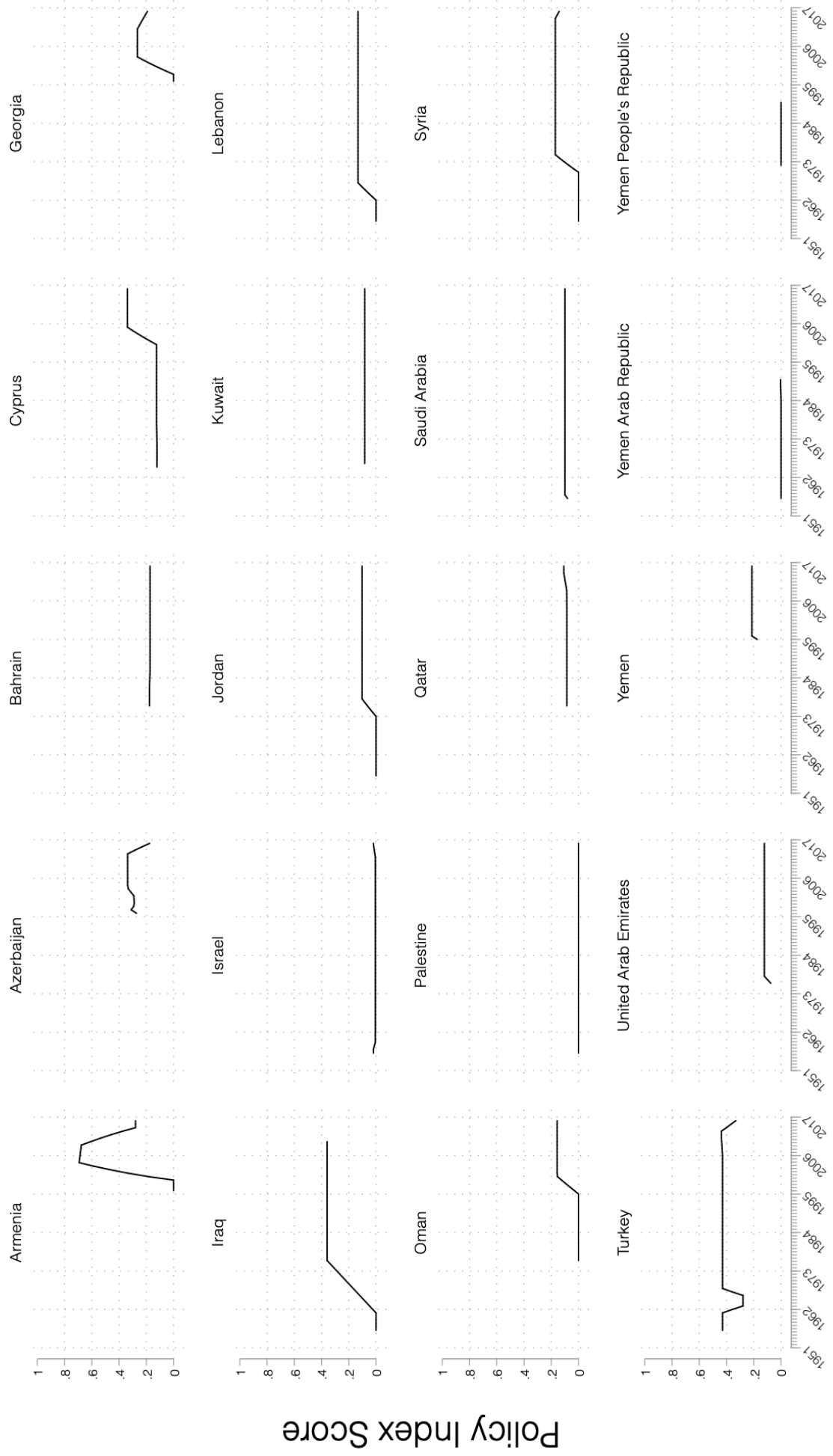
Figure S.12: Asylum Policy Over Time in Central Asian and South Asian Countries

Figure S.13: Liberalizing and Restrictive Policy Changes Over Time

Note: Gray bars depict liberalizing policy changes of at least one standard deviation, while black bars depict restrictive policy changes of at least one standard deviation.

Table S.14: Asylum Policy Changes of +/- 1 Standard Deviation

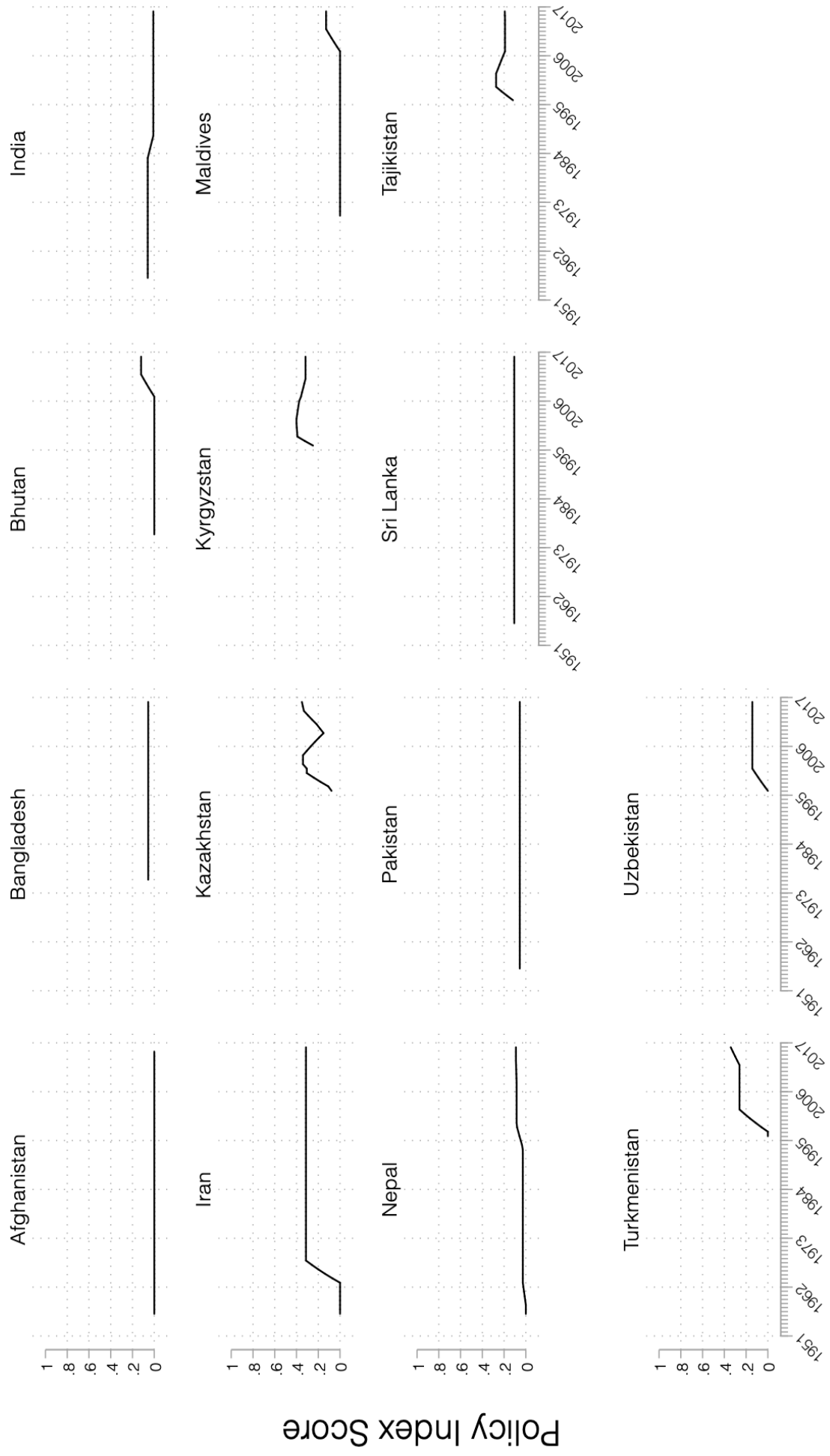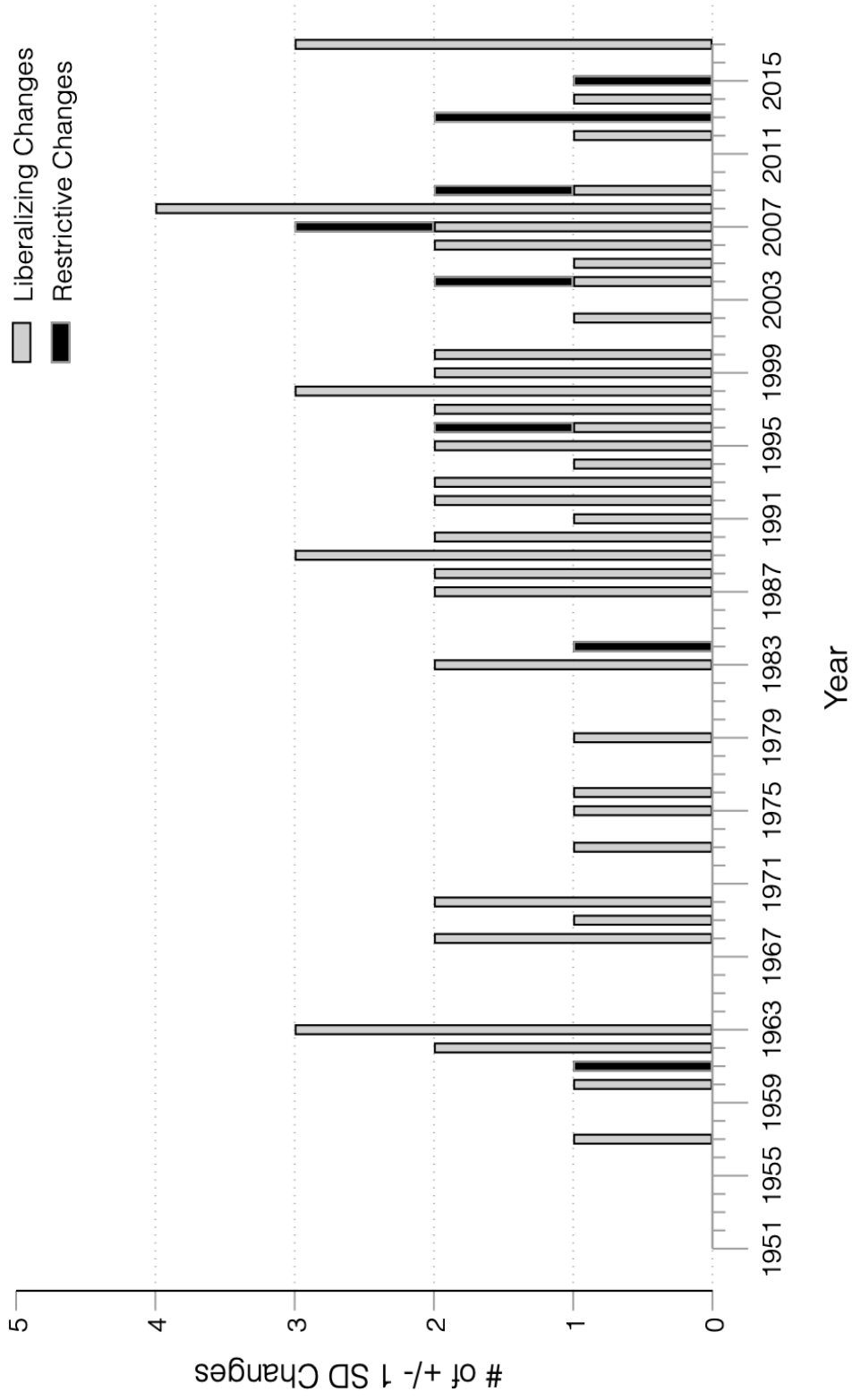| COUNTRY	YEAR	CHANGE IN POLICY (in SD)	DESCRIPTION
Morocco	1957	+ 2.36	Morocco passes the Décret No. 2-57-1256 du 2 safar 1377 (29 août 1957) fixant les modalités d'application de la convention relative au statut des réfugiés signée à Genève le 28 juillet 1951.
Egypt	1960	+ 1.36	Egypt passes the Presidential Decree No. 89 of 1960 on the Residency and Entry of Foreigners.
Turkey	1961	- 3.79	The coup regime that deposed the ruling government in 1960 abrogated the 1924 Constitution and the laws of the former government and called a referendum. The previous Law on Settlement was correspondingly abrogated.
Lebanon	1962	+ 1.00	Lebanon passes the Law Regulating the Entry of Foreign Nationals Into, Their Residence in and Their Departure From Lebanon
Madagascar	1962	+ 2.26	Madagascar passed the Décret No. 1962-001 du 1962 portant création d'un bureau des réfugiés et apatrides au Ministère de l'Intérieur (Direction de la Sécurité Nationale)
Algeria	1963	+ 2.36	Algeria passed the Décret no. 1963-274 du 1963 fixant les modalités d'application de la Convention de Genève du 28 juillet 1951 relative au statut des Réfugiés
Iran	1963	+ 2.20	Iran passed the Regulations Relating to Refugees.
Turkey	1963	+ 3.79	Turkey reinstated the previous Law on Settlement.
Senegal	1968	+ 2.38	Senegal passed the Loi No. 68-27 du 1968 portant statut des réfugiés.
Tunisia	1968	+ 1.12	Tunisia passed the Loi n° 1968-0007 du 8 mars 1968, relative a la condition des eˊtrangers en Tunisie.
Ethiopia	1969	+ 1.00	Ethiopia passed the Proclamation regulating the Issuance of Travel Documents and Visas, and Registration of Foreigners in Ethiopia, No. 271 of 1969
Mauritius	1970	+ 1.24	Mauritius passed the Immigration Act 13 of 1970.
Syria	1970	+1.31	Syria passed the Legislative Decree No. 29 of 15 January 1970 - The Entry and Exit of Aliens to and from the Syrian Arab Republic and Their Residence Therein.
Liberia	1973	+ 1.38	Liberia passed the Aliens and Nationality Law.
Benin	1975	+ 1.40	Benin passed the Ordonnance No. 75-41 du 1975 portant statut des réfugiés.
Gabon	1976	+ 1.37	Gabon passed the Ordonnance No. 64/1976 du 1976, créant une Délégation générale aux réfugiés.
Somalia	1979	+ 2.36	Somalia passed the Somalia Presidential Law No. 47 of 15 July 1979.
Lesotho	1983	+ 1.05	Lesotho passed the The Refugee Act of 1983.
Zimbabwe	1983	+ 2.04	Zimbabwe passed the Chapter 4:03 Refugees Act.
Somalia	1984	- 1.46	Somalia passed the Presidential Decree No. 25 of 1984 on Determination of Refugee Status.
Togo	1987	+ 1.06	Togo passed the Loi no. 1987-12 relative à la police des étrangers.
Guinea	1987	+ 1.29	Guinea passed the Ordonnance no 054/PRG/SG/87 du 22 juillet 1987 portant conditions d'entrée et de séjour des étrangers en République de Guinée.
Comoros	1988	+ 1.16	Comoros passed the Loi n° 88-025 du 29 décembre 1988 portant modification de la loi n° 82-026 relative aux conditions d'entrée et de séjour des étrangers aux Comores.
Burkina Faso	1988	+ 1.81	Burkina Faso passed the Zatu n° AN V-0028/FP/PRES du 3 août 1988, portant statut des réfugiés.
Nigeria	1989	+ 2.19	Nigeria passed the National Commission for Refugees (Establishment, Etc.) Act.
Mozambique	1989	+ 1.45	Mozambique passed the Act No. 21/91.
Burundi	1989	+ 2.36	Burundi passed the Deˊcret-Loi n°1/007 du 20 mars 1989 portant reˊglementation de l'acce`s, du seˊjour, de l'eˊtablissement des eˊtrangers sur le territoire du Burundi et de leur eˊloignement.
Angola	1990	+ 1.82	Angola passed the Law No. 8/90 of May 26.
Ivory Coast	1990	+ 1.29	Ivory Coast passed the Loi No. 90-437 du 29 mai 1990 relative a l'entrée de au sejour des etrangers en Cote d'Ivoire.
Yemen	1991	+ 1.66	Yemen passed the Law on the Entry and Residence of Aliens.
Ghana	1992	+ 1.63	Ghana passed the Refugee Law of 1992.
Azerbaijan	1992	+ 2.76	Azerbaijan passed the Law of the Republic of Azerbaijan On the Status of Refugees and Forced Migrants.
Liberia	1993	+ 1.01	Liberia passed the Refugee Act of 1993.

Table S.14, continued: Asylum Policy Changes of +/- 1 Standard Deviation

COUNTRY	YEAR	CHANGE IN POLICY (in SD)	DESCRIPTION
Kyrgyzstan	1993	+ 3.32	Kyrgyzstan passed the Act of 14 December 1993 on the order for residence of aliens in the Kyrgyz Republic.
Tajikistan	1994	+ 2.22	Tajikistan passed the Law of the Republic of Tajikistan on Refugees of 1994.
Kazakhstan	1995	+ 2.87	Kazakhstan passed the Decree of 19 June 1995 on Legal Status of Foreigners.
Oman	1995	+ 1.08	Oman passed the Foreigners' Residence Law.
Uzbekistan	1996	+ 1.08	Uzbekistan passed the Regulations on Entry to and Exit From the Republic of Uzbekistan for Foreign Citizens and Stateless Persons.
Kazakhstan	1996	- 1.72	Kazakhstan passed the Presidential Decree On Granting of political asylum as of 15 July 1996.
Turkmenistan	1997	+ 2.11	Turkmenistan passed the Law of Turkmenistan on Refugees of 1997.
Kazakhstan	1997	+ 1.72	Kazakhstan passed the Law of the Republic of Kazakhstan of 13 December 1997 No. 204-1 on Population Migration.
Tanzania	1998	+ 1.99	Tanzania passed The Refugees Act of 1998.
Georgia	1998	+ 2.15	Georgia passed the Law of Georgia on Refugees.
Mali	1998	+ 1.61	Mali passed the Loi No. 1998-40 du 1998 portant sur le statut des réfugiés.
Armenia	1999	+ 7.07	Armenia passed The Law of the Republic of Armenia on Refugees.
Namibia	1999	+ 1.57	Namibia passed the Namibia Refugees (Recognition and Control) Act of 1999.
Togo	2000	+ 1.85	Togo passed the Loi No. 2000-019 Portant Statut des Refugies au Togo.
Cyprus	2000	+ 1.91	Cyprus passed The Refugee Law of 2000: A Law to provide for the recognition of refugees and for the better Implementation of the Convention relating to the Status of Refugees.
Democratic Republic of the Congo	2002	+ 1.22	The DRC passed the Law no. 021/2002 "Portant statut des reˊfugieˊs en Reˊpublique Deˊmocratique du Congo."
Ethiopia	2004	+ 1.45	Ethiopia passed the Refugee Proclamation No. 409/2004.
Kazakhstan	2004	- 1.72	Kazakhstan amended the Presidential Decree On Granting of political asylum as of 15 July 1996.
Cameroon	2005	+ 2.92	Cameroon passed the Loi n°2005/006 du 27 juillet 2005 Portant statut des reˊfugieˊs au Cameroun.
Kenya	2006	+ 1.60	Kenya passed The Refugee Act of 2006.
Uganda	2006	+ 3.86	Uganda passed The Refugees Act of 2006.
Kenya	2007	- 1.64	Kenya amended the Kenya Immigration Act.
Sierra Leone	2007	+ 2.85	Sierra Leone passed The Refugees Protection Act of 2007.
Central African Republic	2007	+ 2.87	The CAR passed the Decret No. 07.019 du 28 Decembre 2007 portant Statut des Refugies en Republique Centrafricaine.
Burkina Faso	2008	+ 1.62	Burkina Faso passed the La loi n° 042-2008/AN du 23 octobre 2008 portant statut des reˊfugieˊs au Burkina Faso.
The Gambia	2008	+ 1.32	The Gambia passed the Refugee Act of 2008,
Kenya	2008	+ 1.64	Kenya amended The Refugee Act of 2006.
Guinea-Bissau	2008	+ 2.21	Guinea-Bissau passed the Lei No. 6/2008 de 2008, Aprovado o Estatuto do Refugiado.
Kazakhstan	2009	+ 1.37	Kazakhstan passed The Law of the Republic of Kazakhstan On Refugees.
Armenia	2009	- 4.56	Armenia passed The Law of the Republic of Armenia on Refugees and Asylum.
South Sudan	2012	+ 2.47	South Sudan passed the Act No. 20 of 2012.
Azerbaijan	2013	- 2.45	Azerbaijan passed the Migration Code of the Azerbaijan Republic.
Turkey	2013	- 1.97	Turkey passed the Law on Foreigners and International Protection.
Sudan	2014	+ 2.09	Sudan passed The Asylum Regulation Act of 2014.
Nigeria	2015	- 1.58	Nigeria passed the Immigration Act of 2015.
Kenya	2017	+ 1.01	Kenya passed The Refugees Bill of 2016.
Zambia	2017	+ 4.15	Zambia passed The Refugees Act of 2017.
Djibouti	2017	+ 2.37	Djibouti passed the Deˊcret N° 2017-410/PR/MI fixant les modaliteˊs d'exercice des droits fondamentaux des reˊfugieˊs et demandeurs d'asile en Reˊpublique de Djibouti.

Variable Definitions and Sources: Policy Determinants

Descriptions and sources for all variables used in the analysis can be found here.

Table S.15: Variable Definitions and Sources

Variable	Definition	Source
Dependent Variables		
+/- 1 SD Policy Change	One standard deviation policy change	DWRAP
+ 1 SD Policy Liberalization	One standard deviation policy liberalization	DWRAP
- 1 SD Policy Restriction	One standard deviation policy restriction	DWRAP
Independent Variables		
Intense, Proximate Civil War	Civil conflict causing 1000+ battle deaths in a contiguous neighbor in the prior year	UCDP/PRIO
Elite Kin Discrimination	National political elites (senior partner or above) have politically excluded kin in a country within 1500 km. of inter-capital distance	EPR and CShapes
Aid/GDP	Inverse hyperbolic sine of $\left(\frac{\text{Bilateral DAC aid inflows}}{\text{PPP-adjusted GDP/capita}}\right)$	WDI and PWT
Repression	Reverse-scaled latent human rights index	Fariss (2019)
GDP/Capita	PPP-adjusted GDP/capita	PWT
Control Variables		
Population	Inverse hyperbolic sine of population	PWT
Democracy	Electoral democracy index	VDEM
Former Soviet Union	Country was part of the Soviet Union	ICOW
Civil War in Policymaker	Occurrence of civil war (25+ battle deaths)	UCDP/PRIO
Transnational Terrorism	Inverse hyperbolic sine of transnational terrorist attacks	ITERATE
Trade-to-GDP Ratio	Inverse hyperbolic sine of $\left(\frac{\text{Trade revenue}}{\text{PPP-adjusted GDP}}\right)$	WDI
Regional Liberalization	Country within 1500 km. of inter-capital distance liberalized in prior 3 years	CShapes and DWRAP
Common Legal Origins Liberalization	Country with common legal origins liberalized in prior 3 years	CEPII and DWRAP
Top Aid Recipient Liberalization	Country in 90th percentile of DAC aid inflows liberalized in prior 3 years	WDI and DWRAP

Descriptive Statistics: Policy Determinants

Summary statistics for all variables used in the analysis can be found here.

Table S.16: Descriptive Statistics

	Observations	Mean	Std. Dev.	Minimum	Maximum
Dependent Variables:					
+/- 1 SD Change	4548	.0156113	.1239795	0	1
+1 SD Liberalization	4548	.0136324	.1159719	0	1
-1 SD Restriction	4548	.0019789	.0444456	0	1
+/- 0.5 SD Change	4548	.0252858	.1570092	0	1
+0.5 SD Liberalization	4548	.0206684	.1422874	0	1
-0.5 SD Restriction	4548	.0046174	.067802	0	1
+/- 0.25 SD Change	4548	.0296834	.169731	0	1
+0.25 SD Liberalization	4548	.0239666	.1529618	0	1
-0.25 SD Restriction	4548	.0057168	.0754014	0	1
Independent Variables:					
Intense, Proximate Civil War	4453	.2423086	.4285281	0	1
Elite Kin Discrimination	4336	.4681734	.2490445	0	1
Repression (Continuous)	4525	.4985582	1.147757	-3.334726	3.767393
Repression (Categorical)	4525	1.009724	.8186017	0	2
Aid/GDP	3318	.0648684	.0747464	-.0001421	.2715165
GDP/Capita	3764	8.076455	1.399621	5.124238	12.41238
Control Variables:					
Population	4270	16.25467	1.683151	11.63094	21.6972
Democracy	4590	.2897037	.2047209	.0090806	.8628941
Former Soviet Union	4699	.1368376	.3437124	0	1
Civil War in Policymaker	4607	.2059909	.4044677	0	1
Transnational Terrorism	3760	.3658112	.7771802	0	4.644484
Trade-to-GDP Ratio	3470	4.764886	.5860617	.0209977	6.621084
Regional Liberalization	4287	.2358293	.4245655	0	1
Legal Origins Liberalization	4454	.5904805	.4918004	0	1
Top Aid Liberalization	4369	.3254749	.4686057	0	1

Correlation of Variables: Policy Determinants

To allay concerns about collinearity, we plot the correlation matrix of our policy score and control variables. Figure S.17 shows that none of the control variables are too highly correlated, lending confidence in our specification.
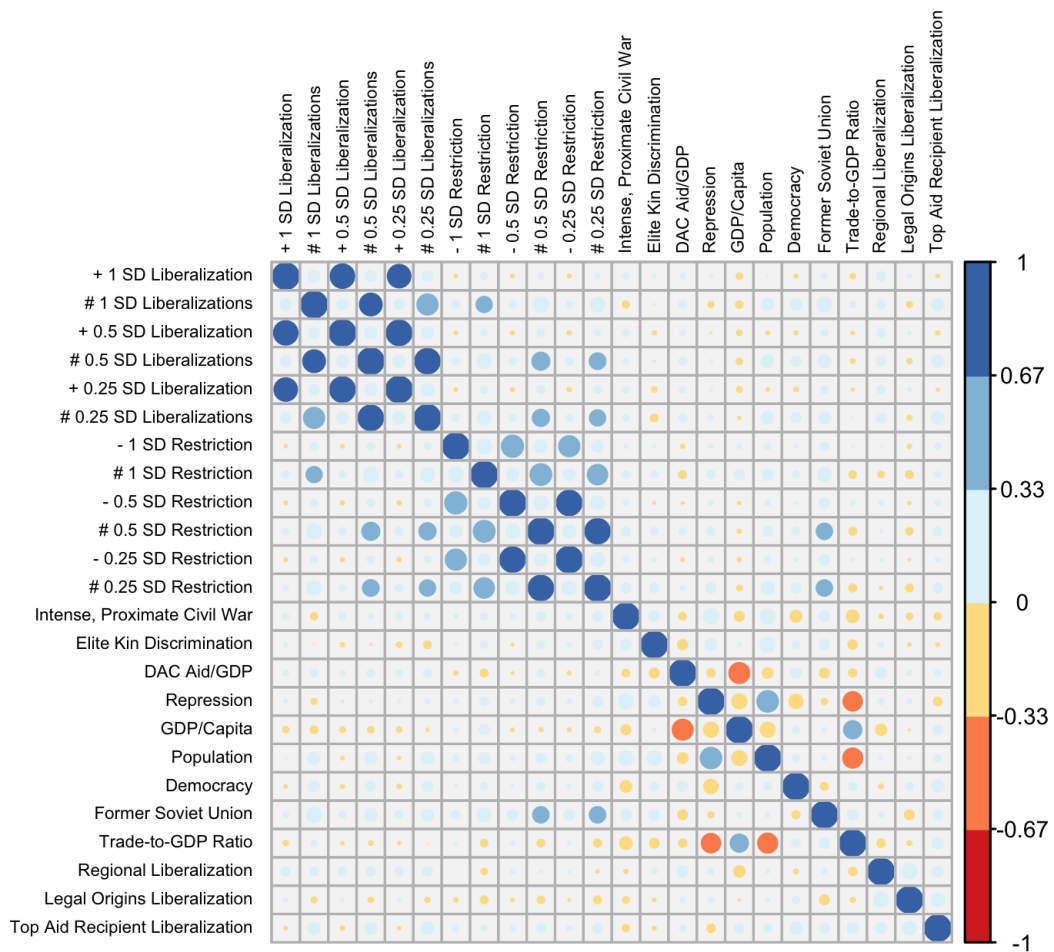
Figure S.17: Correlogram of Key Variables in Policy Determinants Models

Qualitative Interviews

We conducted a series of qualitative interviews with asylum-seekers, refugees, representatives from humanitarian organizations, and UN and government officials in Uganda between June 8 and July 19, 2017. All interviews were conducted with informed consent, and our field study was approved by the University of Pennsylvania Institutional Review Board ("Exploratory Cross Border Migration Study"; Protocol Number: 827614). We also received explicit permission for interviews from the Office of the Prime Minister of Uganda and the Uganda National Police Force. Interview responses quoted in the paper are anonymized to ensure participant privacy and safety. Demographic statistics on study participants are shown in Table S.18. A total of 100 interviewees were forced migrants residing in Uganda. These participants came from diverse national backgrounds, including: the Democratic Republic of the Congo, South Sudan, Burundi, Rwanda, Somalia, and Ethiopia; and ethnic backgrounds, including: Banyamulenge and Banyarwanda, Hutus and Tutsis, and Dinka, Nuer, and Equatorians. We also talked to 7 Ugandans who work at national NGOs, 5 non-Ugandans who work for international NGOs, 5 employees of the Government of Uganda, 7 representatives from United Nations organizations, and 2 other South Sudanese opposition politicians. Conversations took the form of semi-structured interviews and focus group discussions, and fieldwork took place in Kampala, Mbarara, and the Nakivale Refugee Settlement. Figure S.19 displays our fieldsites and the forced migration environment in Uganda.

Table S.18: Demographic Statistics on Study Participants

| | Activists and Officials | | | | | Forced Migrants | | | | | | |
	Ugandans	Intl	Govt	UN	Non-Refugee SS	DRC	South Sudan	Burundi	Rwanda	Somalia	Ethiopia	Totals
Men	2	2	5	4	2	36	13	7	0	3	1	**75**
Women	5	3	0	3	0	16	5	6	5	8	0	**51**
Total	**7**	**5**	**5**	**7**	**2**	**52**	**18**	**13**	**5**	**11**	**1**	**126**

Note: Ugandans refers to local Ugandan NGO advocates; Intl refers to international NGO advocates; Govt refers to Ugandan government officials; UN refers to United Nations officials; DRC refers to refugees from the Democratic Republic of the Congo; Non-Refugee SS refers to non-refugee South Sudanese opposition politicians.

Figure S.19: Uganda's Protection Environment and Qualitative Fieldsites
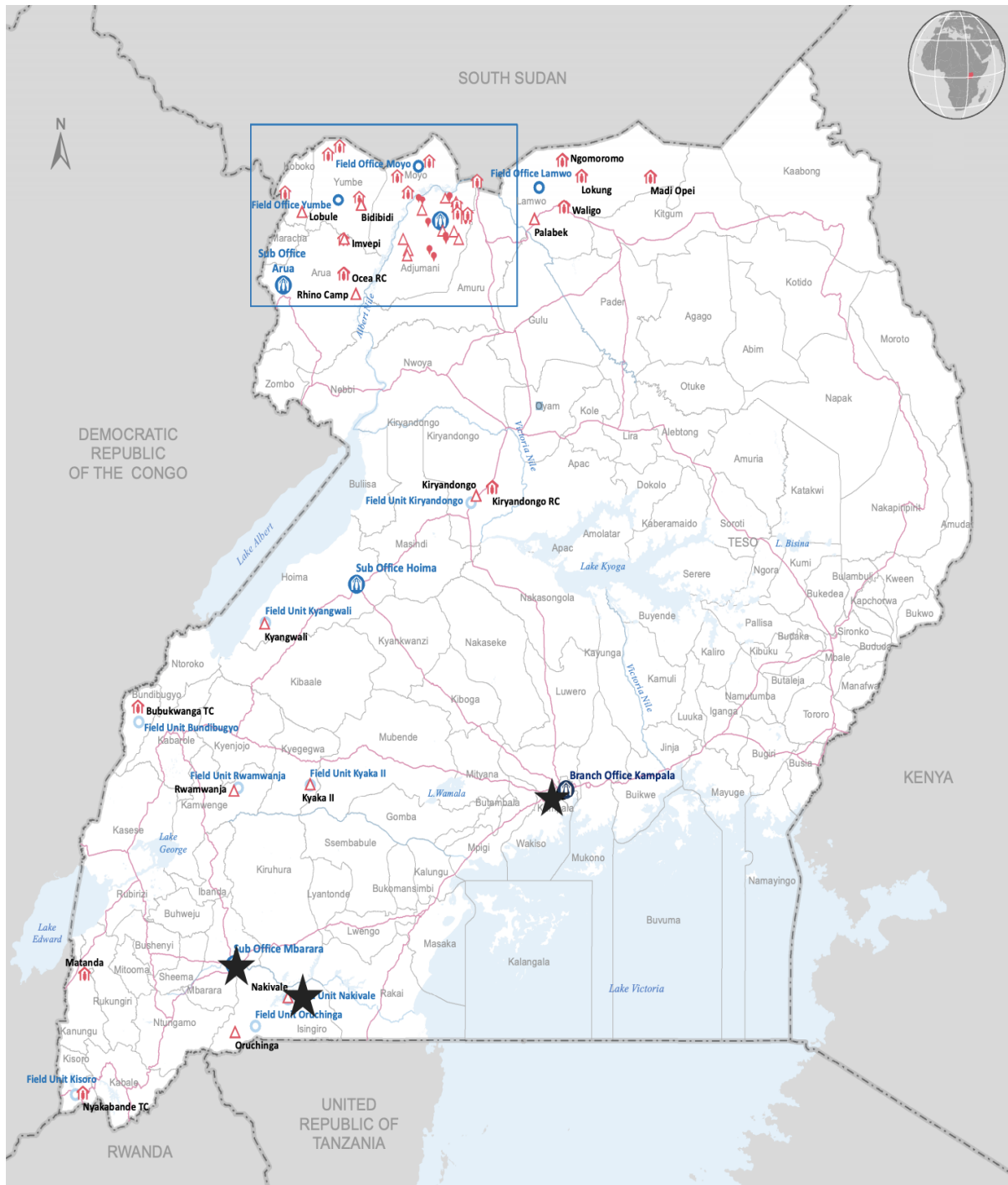
Note: Black stars on the map mark fieldsites in Kampala, Mbarara, and Nakivale. Red and blue marks note UNHCR-administered settlements, field units, and field offices. The map was produced by the UNHCR, and reflects Uganda's protection environment as of May 2017, one month before our fieldwork began. The map can be found at https://www.ugandanetworks.org/Publisher/File.aspx?ID=191002.

Contingency Tables of Civil War and Policy Change

In all three tables, neighboring civil war refers to the occurrence of an intrastate armed conflict in a country's contiguous neighbor in the prior year. Intense, neighboring civil war refers to the occurrence of an intrastate armed conflict with at least 1000 battle deaths in a country's contiguous neighbor in the prior year.

Table S.20: Neighborhood Civil War and +/- 1.5 SD Changes

	Total Cases	Neighboring Civil War (Prior Year)	Intense Neighboring Civil War (Prior Year)
+/- 1.5 SD Change	47	30 (63.8%) $\text{Chi}^2 = 2.443$	18 (38.2%) $\text{Chi}^2 = 5.120^{**}$
+1.5 SD Liberalization	39	24 (61.5%) $\text{Chi}^2 = 1.288$	16 (41.0%) $\text{Chi}^2 = 6.045^{**}$
-1.5 SD Restriction	8	6 (75.0%) $\text{Chi}^2 = 1.626$	2 (25.0%) $\text{Chi}^2 = 0.003$

Table S.21: Neighborhood Civil War and +/- 1 SD Changes

	Total Cases	Neighboring Civil War (Prior Year)	Intense Neighboring Civil War (Prior Year)
+/- 1 SD Change	71	45 (63.3%) $\text{Chi}^2 = 3.581^{*}$	28 (39.4%) $\text{Chi}^2 = 9.145^{***}$
+1 SD Liberalization	62	38 (62.3%) $\text{Chi}^2 = 2.059$	25 (40.3%) $\text{Chi}^2 = 8.922^{***}$
-1 SD Restriction	9	7 (77.8%) $\text{Chi}^2 = 2.355$	3 (33.3%) $\text{Chi}^2 = 0.411$

Table S.22: Neighborhood Civil War and +/- 0.5 SD Changes

	Total Cases	Neighboring Civil War (Prior Year)	Intense Neighboring Civil War (Prior Year)
+/- 0.5 SD Change	115	73 (63.5%) $\text{Chi}^2 = 5.964^{**}$	45 (39.1%) $\text{Chi}^2 = 14.369^{***}$
+0.5 SD Liberalization	94	57 (60.6%) $\text{Chi}^2 = 2.059$	36 (38.3%) $\text{Chi}^2 = 10.421^{***}$
-0.5 SD Restriction	21	16 (76.2%) $\text{Chi}^2 = 4.846^{**}$	9 (42.9%) $\text{Chi}^2 = 4.0084^{**}$

Policy Change and Alternative Definitions of Civil War

Figure S.23: Intense Episodes of Civil War Precipitate Policy Changes
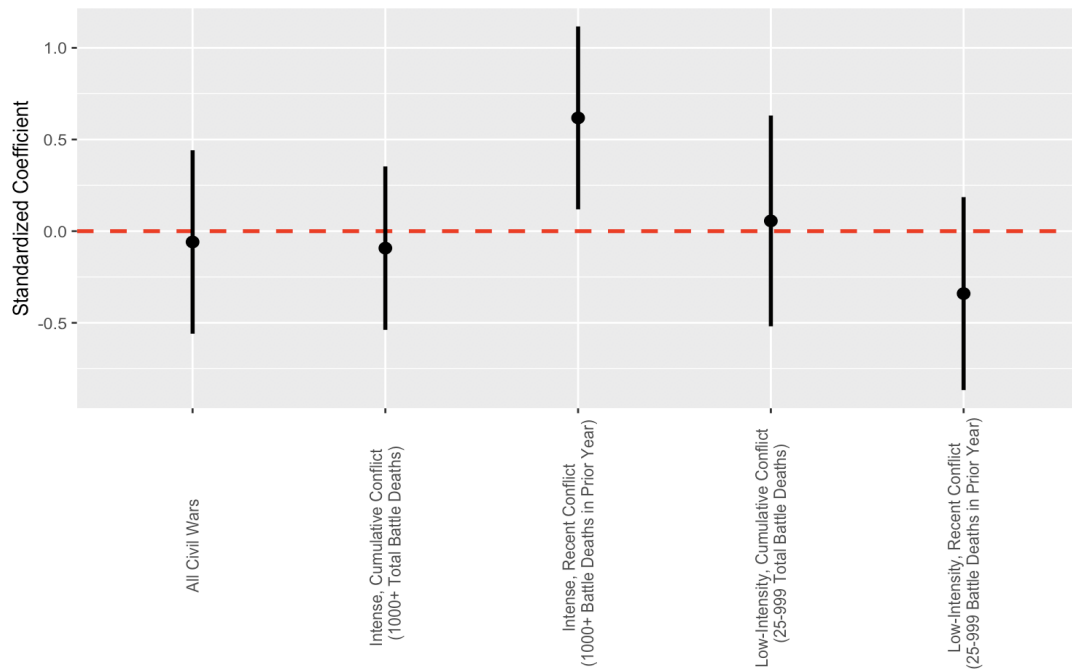
Note: Plots denote coefficients and 95% confidence intervals for models of +/- 1 standard deviation policy changes. Estimates in the third model ("Intense Recent Conflict") correspond to column 1 in Table 3. Other models repeat this specification with the respective alternative definition of civil war. The dashed line denotes 0. Data on civil wars are from the UCDP/PRIO Armed Conflict Dataset (Gleditsch et. al. 2002; Pettersson, Högbladh, and Öberg 2019). Cumulative battle death totals refer to the sum of battle deaths over the duration of a conflict. Battle deaths in prior year refer to the annual number of battle deaths in year $t-1$.

Figure S.24: Testing the Proportional Hazards Assumption
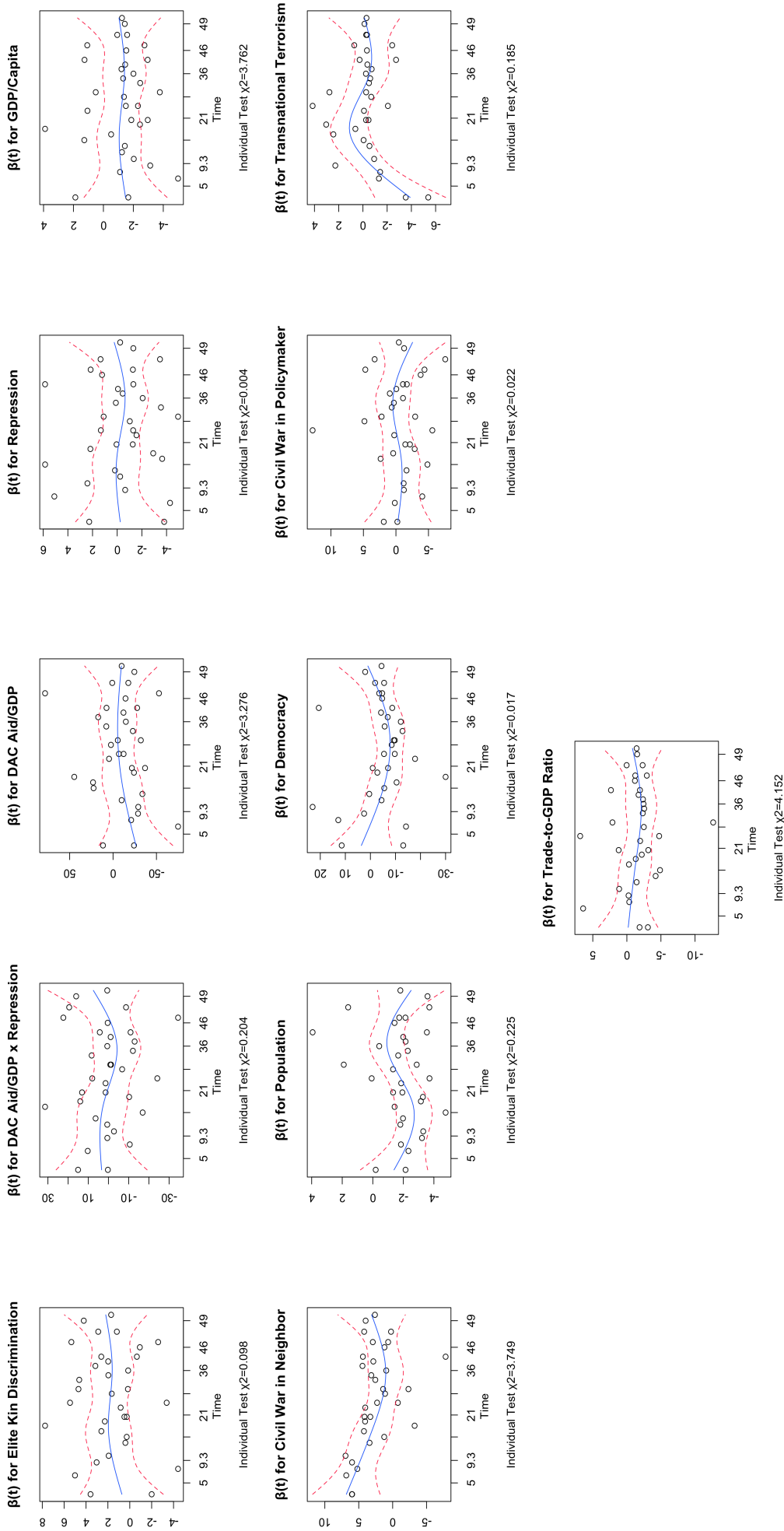
Note: Following the advice of Grambsch and Therneau (1994), we test the proportional hazards assumption (PHA) for the baseline conditional frailty specification in column 2 of Table 4. The global test is statistically insignificant, suggesting the PHA is satisfied. Plots depict each covariate's scaled Schoenfeld residuals over time. If the PHA is satisfied, we expect to see residuals clustered around 0 with a relatively flat, smooth fitted average. Black points are scaled Schoenfeld residuals. The blue line captures the smoothed, local average of residuals. Red lines are confidence bands marking $+/-$ 2 standard errors from the mean.

Regression Results for Figure 6

Table S.25 contains core regression results corresponding to Figure 6 in the main text. The specification of all models follows that of column 3 in Table 4. Each column changes the threshold for liberalization. Column 7 uses our equally-weighted index to show results are robust to index construction.

Table S.25: Regression Results for Figure 6

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DV Threshold	+ 0.50 SD Liberalization	+ 0.60 SD Liberalization	+ 0.70 SD Liberalization	+ 0.80 SD Liberalization	+ 0.90 SD Liberalization	+ 1 SD Liberalization	+1 SD Liberalization	+ 1.10 SD Liberalization	+ 1.20 SD Liberalization	+ 1.30 SD Liberalization	+ 1.40 SD Liberalization	+ 1.50 SD Liberalization
Index Weighting	ICW	ICW	ICW	ICW	ICW	ICW	EW	ICW	ICW	ICW	ICW	ICW
Elite Kin Discrimination	0.145	0.087	0.063	0.493	0.803	1.547***	0.918**	2.303***	2.014***	1.770***	1.555***	1.931**
	(0.458)	(0.423)	(0.446)	(0.486)	(0.509)	(0.373)	(0.418)	(0.506)	(0.466)	(0.482)	(0.549)	(0.784)
DAC Aid/GDP x Repression	0.413	1.118	1.710	1.246	0.336	-0.621	-2.979*	-0.912	-1.277	-0.782	0.452	-2.912
	(1.434)	(1.320)	(1.343)	(1.256)	(1.560)	(1.394)	(1.717)	(1.518)	(1.850)	(1.631)	(2.130)	(3.123)
GDP/Capita	-1.103***	-1.207***	-1.245***	-0.949***	-0.989***	-1.183***	-0.798***	-1.293***	-1.305***	-1.290***	-1.109***	-1.582***
	(0.304)	(0.252)	(0.261)	(0.282)	(0.313)	(0.171)	(0.200)	(0.190)	(0.207)	(0.234)	(0.277)	(0.400)
DAC Aid/GDP	-10.768***	-14.796***	-13.867***	-13.380***	-10.306***	-8.414***	-4.958*	-6.386**	-7.409**	-8.559**	-8.703**	-17.938***
	(2.802)	(2.491)	(2.650)	(3.038)	(3.558)	(2.734)	(2.748)	(3.003)	(3.020)	(3.358)	(4.444)	(6.698)
Repression	0.049	0.203	0.112	-0.083	-0.091	-0.395	0.477	-0.040	-0.309	-0.152	0.049	0.194
	(0.308)	(0.239)	(0.262)	(0.266)	(0.366)	(0.371)	(0.395)	(0.402)	(0.489)	(0.417)	(0.463)	(0.650)
Additional Controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Country Frailties	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year Frailties	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Log-Likelihood	-69.559	-74.316	-72.207	-58.207	-58.207	-47.624	-44.599	-40.081	-35.839	-31.387	-24.132	-18.680
AIC	156.284	163.696	162.310	140.487	130.226	109.850	104.988	97.401	91.922	81.942	63.020	56.276
Observations	2624	2624	2624	2624	2624	2624	2624	2624	2624	2624	2624	2624

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses; the table displays standardized coefficients rather than hazard ratios; the model is stratified by the number of one standard deviation liberalizing policy changes a country has made; Efron's method is used for ties. ICW refers to our main index, which is aggregated by inverse covariance-weighting. EW refers to our alternate, equally-weighted index.

Robustness to Additional Controls and Subsets

Taking our core specification from column 3 of Table 4, the finding on elite kin discrimination holds when we control for: (1) the five-year lagged moving average of a country's asylum policy score; (2) indicators for a country's colonizer; (3) a country's unemployment; (4) a country's natural resource rents-to-GDP ratio; (5) Chinese development assistance to a country; (6) a country's ruling party's political orientation; and (7) indicators for the Cold War and Post 9/11 eras. To verify that our results are not driven by newly independent countries we: (8) exclude observations from the pre-1990 (decolonization) period; and (9) exclude observations within the first 10 years of each country's independence.

Figure S.26: The Effect of Elite Kin Discrimination Remains With Additional Controls
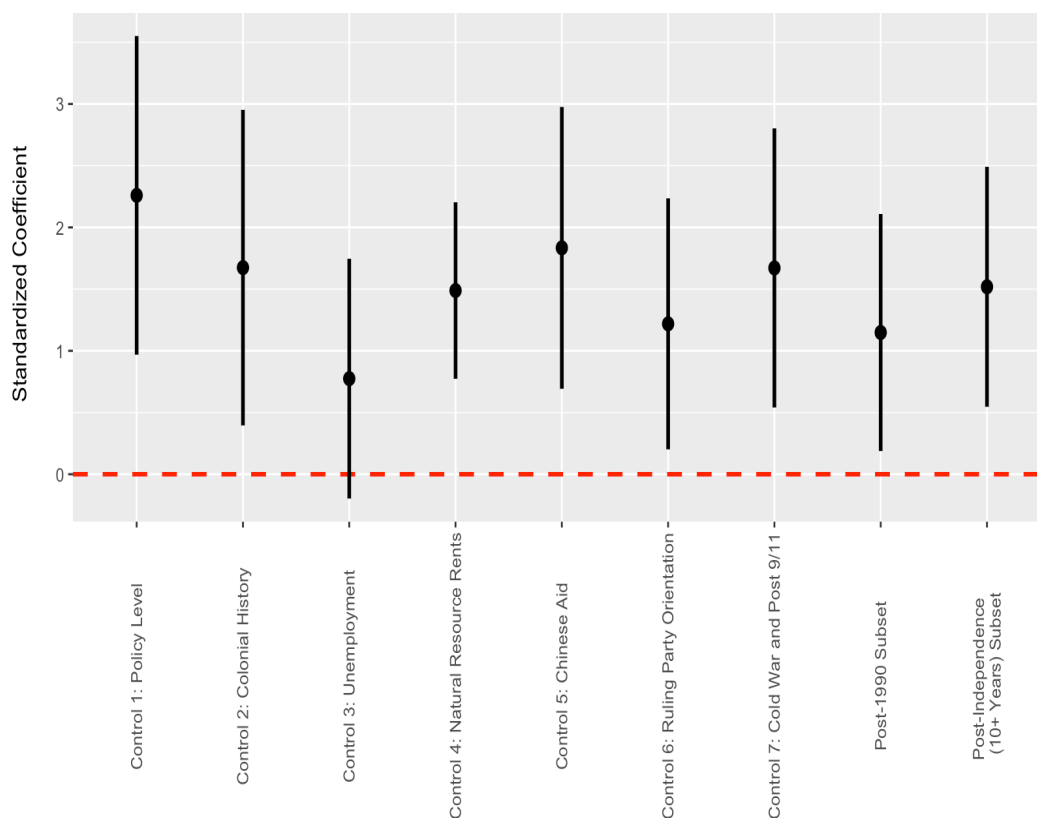
Note: Plots denote coefficients and 95% confidence intervals for elite kin discrimination in models with additional controls. The dashed line marks 0. Unemployment is nearly significant (p = 0.111).

Changing Distance Thresholds

Our kin measure takes a value of 1 when political elites' co-ethnics are discriminated in countries within 1500 kilometers of inter-capital distance, and 0 otherwise. However, results are robust to the choice of distance threshold within which neighborhood kin discrimination is defined.

Figure S.27: The Effect of Elite Kin Discrimination Over Distance Thresholds
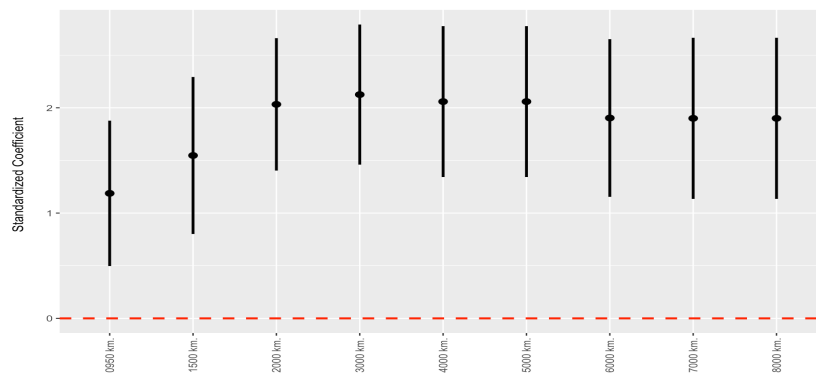
Note: Plots denote coefficients and 95% confidence intervals for elite kin discrimination. Labels denote the distance threshold used in each model. The dashed line marks 0.

Iteratively Dropping Large Liberalizing Countries

Taking our core specification from column 3 of Table 4, the finding on elite kin discrimination holds when we iteratively drop countries that have made large liberalizing asylum policy reforms, with large reformers defined as countries making changes in the 90th percentile of the annual difference in policy scores.

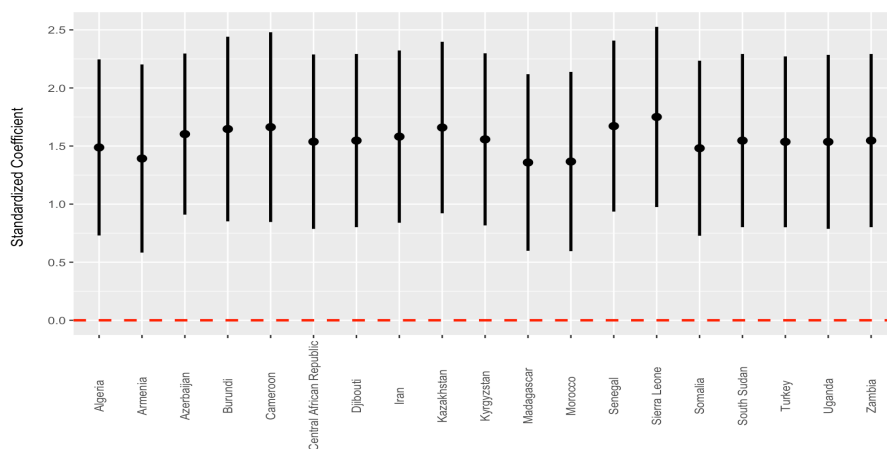Figure S.28: The Effect of Elite Kin Discrimination Remains After Dropping Liberalizing Countries

Note: Plots denote coefficients and 95% confidence intervals for elite kin discrimination. Labels denote the dropped country in each model. The dashed line marks 0.

Robustness to a Coarsened Repression Measure

Table S.29 contains core regression results corresponding to Table 4 in the main text. In place of the continuous repression index we use a coarsened version split into three categories along the 33rd and 66th percentiles.

Table S.29: The Determinants of Liberalizing Asylum Policy Changes With a Coarsened Repression Measure

VARIABLES	(1) +1 SD Liberalization	(2) +1 SD Liberalization	(3) +1 SD Liberalization	(4) +1 SD Liberalization	(5) +1 SD Liberalization	(6) +1 SD Liberalization
Elite Kin Discrimination	1.251**	1.252**	1.524***	1.093*	1.235**	1.529**
	(0.623)	(0.621)	(0.384)	(0.573)	(0.612)	(0.701)
DAC Aid/GDP x Repression	1.886	1.879	-0.366	-0.375	1.836	3.413
	(3.014)	(3.006)	(1.814)	(3.155)	(3.073)	(3.354)
GDP/Capita	-0.896***	-0.897***	-1.128***	-0.901***	-0.881***	-1.071***
	(0.297)	(0.296)	(0.165)	(0.329)	(0.302)	(0.275)
DAC Aid/GDP	-6.807	-6.816	-8.276***	-2.437	-6.690	-11.079*
	(5.231)	(5.213)	(3.139)	(4.985)	(5.424)	(6.070)
Repression (Coarsened)	-0.570	-0.569	-0.140	-0.468	-0.551	-0.680
	(0.726)	(0.725)	(0.346)	(0.683)	(0.738)	(0.753)
Additional Controls	Y	Y	Y	Y	Y	Y
Country Frailties	N	Y	Y	Y	Y	Y
Year Frailties	N	N	Y	N	N	N
Log-Likelihood	-53.926	-53.929	-49.160	-48.896	-53.814	-49.781
AIC	129.851	129.633	110.159	121.785	131.420	121.681
Observations	2624	2624	2624	2624	2624	2624

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses; the table displays standardized coefficients rather than hazard ratios; the model is stratified by the number of one standard deviation liberalizing policy changes a country has made; Efron's method is used for ties.

Competing Risks

Our primary modeling strategy is the conditional frailty approach. This is the preferred method to estimate repeated-failure duration models in the presence of event dependence and unit heterogeneity (Box-Steffensmeier and De Boef, 2006; Box-Steffensmeier, De Boef, and Joyce, 2007). These benefits of the conditional frailty approach notwithstanding, conditional frailty models do not take competing risks into account. Competing risks occur when an event of interest (e.g. policy liberalization) can occur in various ways (e.g. one standard deviation, one-half standard deviation, or one-quarter standard deviation liberalizations). When any cause of failure can occur, but the occurrence of one cause alters the probability or precludes the observation of the other cause(s), competing risks models are required. In the presence of competing risks, standard Cox models are upwardly biased because they simply treat competing events as censored. By contrast, competing risks models estimate cause-specific hazards. The drawback of competing risks

estimators is that they do not take repeated failures into account. In other words, selecting between conditional frailty and competing risks entails a trade-off: flexible handling of unit heterogeneity and event dependence but not competing risks, or flexible handling of competing risks but not unit heterogeneity or event dependence. We employ conditional frailty models in our main specification because of the large number of repeated failures in our models, and because event dependence and unit heterogeneity are both present. Nevertheless, in Table S.30 we show that our core results are robust to competing risks estimation. Competing risks models in Table S.30 follow the approach outlined by Fine and Gray (1999), who describe a method of estimating the cumulative incidence function based on the subdistribution hazard.

Table S.30: Competing Risks Estimates

VARIABLES	Main Index		Equally-Weighted Index	
	(1)	(2)	(3)	(4)
	+1 SD Liberalization	+1 SD Liberalization	+1 SD Liberalization	+1 SD Liberalization
Elite Kin Discrimination	1.218**	1.235**	1.309**	1.421***
	(0.562)	(0.585)	(0.525)	(0.535)
DAC Aid/GDP x Repression	2.015	3.592	2.162	2.893
	(2.949)	(3.120)	(3.374)	(3.885)
GDP/Capita	-1.121***	-0.894***	-0.992***	-0.788***
	(0.250)	(0.280)	(0.214)	(0.217)
DAC Aid/GDP	-6.115	-5.614	-6.424	-7.469
	(4.586)	(5.514)	(5.192)	(5.767)
Repression	-0.392	-0.602	-0.284	-0.344
	(0.623)	(0.719)	(0.598)	(0.744)
Civil Conflict in Neighbor	1.205*	1.602**	1.331**	1.059
(1000+ Battle Deaths in Prior Year)	(0.620)	(0.670)	(0.569)	(0.662)
Population	-1.210***	-1.285***	-1.178***	-1.288***
	(0.255)	(0.244)	(0.280)	(0.246)
Democracy	-3.348	-4.695*	-2.505	-3.670
	(2.127)	(2.745)	(2.254)	(2.385)
Civil War in Policymaker	-0.456	-1.014	-1.203	-1.094
	(0.706)	(0.920)	(0.866)	(0.786)
Transnational Terrorism	-0.076	-0.041	0.108	-0.027
	(0.405)	(0.377)	(0.340)	(0.387)
Trade-to-GDP Ratio	-1.276***	-1.869***	-0.992**	-1.406***
	(0.336)	(0.347)	(0.418)	(0.378)
Number of 1 SD Liberalizations	3.660***	5.342***	3.373***	4.386***
	(0.398)	(0.560)	(0.328)	(0.451)
Log-Likelihood	-148.918	-137.364	-138.928	-129.395
AIC	321.836	298.727	372.326	282.790
Observations	2624	2624	2624	2624

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses; the table displays standardized coefficients rather than hazard ratios; competing risks are defined as three-quarter, one-half and one-quarter standard deviation liberalizing changes in columns 1 and 3; competing risks are defined as any restrictive change of at least one-quarter standard deviation in columns 2 and 4.

Non-Survival Modeling

Our main result, the positive effect of elite kin discrimination on asylum policy liberality, is robust to non-survival approaches. In panel A of Table S.31 we estimate two-stage Heckman and conditional mixed process (CMP) models. In columns 1 and 2 of panel A, the first-stage outcome is an indicator for whether a country made any policy change in a given year *t*, and the second-stage outcome is the magnitude of the difference in a country's policy score from year *t-1* to year *t*, conditional on any policy change. In columns 3 and 4 of panel A, the first-stage outcome is an indicator for whether one of a country's contiguous neighbors experienced an intense civil war in a given year *t-1*, and the second-stage outcome is the level of a country's policy score in year *t*, conditional on any intense, proximate civil war. In panel B of Table S.31 we estimate an OLS model with country-level random effects. The outcome variable is the magnitude of the difference in a country's policy score from year *t-1* to year *t*. We interact our hypothesized determinants with an indicator for intense, proximate civil war, the impetus for policy change.

Table S.31: Non-Survival Models

Panel A: 2 Stage Heckman and Conditional Mixed Process Models

	2nd Stage: Difference in Policy Score; 1st Stage: Policy Change		2nd Stage: Policy Score; 1st Stage: Intense, Proximate Civil War	
VARIABLES	(1) Heckman	(2) CMP	(3) Heckman	(4) CMP
Elite Kin Discrimination	0.066** (0.033)	0.062* (0.034)	0.021* (0.012)	0.026* (0.013)
DAC Aid/GDP x Repression	-0.115 (0.158)	-0.074 (0.136)	0.101 (0.108)	0.099 (0.105)
GDP/Capita	-0.016 (0.015)	-0.017 (0.015)	0.025* (0.015)	0.025* (0.014)
DAC Aid/GDP	-0.039 (0.309)	-0.061 (0.307)	0.252 (0.195)	0.311 (0.200)
Repression	-0.011 (0.023)	-0.015 (0.021)	0.005 (0.023)	0.011 (0.022)
2nd Stage Controls	Y	Y	Y	Y
2nd Stage Constant	0.791*** (0.294)	0.670* (0.343)	-1.365*** (0.314)	-1.171*** (0.283)
1st Stage: Intense, Proximate Civil War	0.232** (0.095)	0.283*** (0.097)	— —	— —
1st Stage Controls	Y	Y	Y	Y
1st Stage Constant	-1.971* (1.142)	-2.350** (1.187)	-3.547*** (1.104)	-2.798*** (1.056)
Observations	2624	2624	3411	3665

Panel B: 1 Stage Random Effects OLS Model

	DV: Difference in Policy Score
VARIABLES	(1) OLS
Elite Kin Discrimination x Intense, Proximate Civil War	0.009* (0.005)
DAC Aid/GDP x Repression x Intense, Proximate Civil War	-0.029 (0.034)
GDP/Capita x Intense, Proximate Civil War	-0.002 (0.002)
DAC Aid/GDP x Intense, Proximate Civil War	-0.028 (0.060)
Repression x Intense, Proximate Civil War	-0.004 (0.003)
Elite Kin Discrimination	-0.003 (0.002)
DAC Aid/GDP x Repression	0.009 (0.007)
GDP/Capita	-0.001 (0.001)
DAC Aid/GDP	0.002 (0.015)
Repression	0.001 (0.001)
Intense, Proximate Civil War	0.022 (0.019)
Controls	Y
Country RE	Y
Constant	0.041*** (0.014)
Observations	2623

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses.

Robustness to an Equally-Weighted Index

Table S.32 contains core regression results corresponding to Table 5 in the main text. In place of the main (inverse covariance-weighted) policy index we use our equally-weighted index.

Table S.32: The Determinants of Restrictive Asylum Policy Changes With an Equally-Weighted Index

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	-1 SD Restriction	-1 SD Restriction	-1 SD Restriction	-1.5 SD Restriction	-0.75 SD Restriction	-0.5 SD Restriction	-0.25 SD Restriction
GDP/Capita	0.469*	0.469*	0.468*	0.832***	0.324	0.175	0.122
	(0.272)	(0.272)	(0.242)	(0.191)	(0.202)	(0.161)	(0.155)
Population	0.601***	0.601***	0.617***	0.858***	0.453***	0.320***	0.143
	(0.201)	(0.201)	(0.169)	(0.148)	(0.133)	(0.113)	(0.108)
Country Frailties	N	Y	Y	Y	Y	Y	Y
Year Frailties	N	N	Y	Y	Y	Y	Y
Log-Likelihood	-23.602	-23.602	-16.678	-9.031	-29.507	-35.448	-47.099
AIC	51.205	51.205	55.411	46.464	79.915	100.687	135.295
Observations	3627	3627	3627	3627	3627	3627	3627

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by country are in parentheses; the table displays standardized coefficients rather than hazard ratios; the model is stratified by the number of the respective magnitude standard deviation restrictive policy changes a country has made, as well by an indicator for intense civil war in a contiguous neighbor; Efron's method is used for ties.

Iteratively Dropping Restrictive Countries

Taking our core specification from column 3 of Table 5, the finding on GDP per capita holds when we iteratively drop countries that have made one standard deviation policy restrictions.

Figure S.33: The Effect of GDP/Capita Remains After Dropping Restrictive Countries
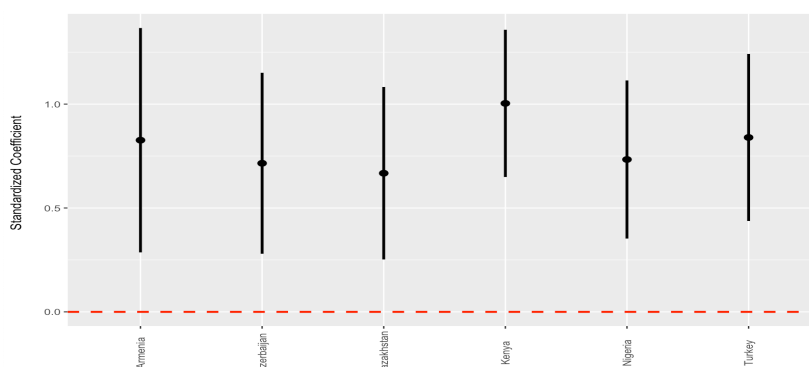
Note: Plots denote coefficients and 95% confidence intervals for GDP per capita. Labels denote the dropped country in each model. The dashed line marks 0.

S.34: Understanding Forced Migrant Decisionmaking

Scholars of migration generally analyze migrant flight patterns in terms of a choice-based, rationalist, utility-maximizing framework (Czaika, 2009; Grogger and Hanson, 2011; Hanson and McIntosh, 2016). In seminal models of migration, individuals weigh the costs of leaving versus the prospective benefits of migrating to various destination countries before deciding whether and where to go, subject to uncertainty and budget constraints. Factors driving individuals to leave their home countries are "push" factors, while factors inducing gravitation toward certain destinations are "pull" factors. We draw on this framework, but broaden the scope of most existing models by focusing on *de jure* policy environments as an unexplored pull factor.

The literature on refugee and asylum-seeker decisionmaking emphasizes a limited set of push and pull factors that influence the expected costs and benefits of flight. Corresponding with the legal definition of forced migrants as individuals fleeing persecution and discrimination, conflict and repression in home countries raise the costs of staying (Neumayer, 2005; Moore and Shellman, 2007). Apart from its immediate implications for physical integrity, moreover, violence induces out-migration by destroying economic opportunities and individual livelihoods (Adhikari, 2013), and by changing local, ethno-political power structures (Steele, 2017). External displacement thus increases with conflict and repression.

Existing research also highlights several key pull factors. Above all, distance raises migration costs (Iqbal, 2007), so we should observe asylum-seekers pulled in greatest numbers to neighboring countries. Similarly, migrant networks—whether co-ethnic or co-lingual—are a powerful draw to specific destinations (Fitzgerald, Leblang, and Teets, 2014). Before individuals migrate, kin groups can relay information about conditions in prospective destinations, as well as risks along the way. Within destination countries, these networks ease integration (Rüegger and Bohnet, 2018), reduce the risk of xenophobic attacks (Freibel, Gallego, and Mendola, 2013), and help secure higher-paying jobs (Munshi, 2003) and better housing (Light, Bernard, and Kim, 1999).

Political and economic conditions in target countries also exert a powerful influence in migrants' decisionmaking. This is instinctive when migration is viewed, as in choice-based models, as an inter-temporal optimization problem (Czaika, 2009). Even for forcibly displaced persons, whose chief motive is personal security, factors like relative differences in GDP per capita, unemployment (Fitzgerald, Leblang, and Teets, 2014), and labor supply projections (Hatton and Williamson, 2003; Hanson and McIntosh, 2016) are taken into account. Specifically, these factors pull migrants toward strong, growing economies and push them from stagnant ones. Finally, prior research also identifies the important role of civic strife and civil liberties as pull factors. Asylum seekers fleeing persecution and discrimination are naturally less likely to relocate to destinations perpetrating the same abuses from which they are fleeing in the first place (Moore and Shellman, 2007; Echevarria and Gardeazabal, 2016). In sum, political, social and economic conditions in target countries are salient as potential asylum seekers decide if and where to flee. This, in turn, raises the prospect that asylum and refugee policies in potential target countries would enter calculus of fleeing migrants. We build on and extend this intuition, focusing on asylum and refugee policies in the developing world.

Czaika (2009) has formalized the argument that liberal policies attract migrants. His model implies that since liberal asylum policies attract migrants, migration outflows should trigger a "race to the bottom" among Western countries restricting asylum policies to deter inflows. Such restrictions induce migrants hosted in developing countries to extend their stay. Protracted displacement, in turn, can pressure developing (host) countries to enact more liberal asylum policies (e.g., working permits) to ease migrants' integration and make them more self-sufficient. This in turn, argues Czaika, should further increase the stock of refugees hosted in developing countries. We build on this theoretical foundation.

S.35: Gravity Models

To test the relationship between *de jure* refugee and asylum policy and asylum seeking patterns we estimate a set of gravity models. Gravity models are the workhorse for analyzing migration and trade flows between countries (Anderson, 2011), and as a result, a large literature has emerged on their correct specification.[1] The central debate in the gravity model literature is between proponents of log-linearized versus exponential specifications. In the log-linearized transformation, the dependent variable is logged and then estimated with ordinary least squares. However, owing to Jensen's inequality, which holds that $E[ln(y)] \neq ln[E(y)]$, ordinary least squares (OLS) estimates of the log-linearized transformation are inconsistent in the presence of heteroscedasticity (Santos Silva and Tenreyro, 2006). Cluster robust standard errors do not affect the parameter estimates, so while clustering can mitigate bias in the standard error estimate, the log-linear transformation still yields biased coefficient estimates with clustered standard errors.

A second problem with the log-linear transformation relates to its handling of zero values. In standard migration gravity models, many zeroes are typically observed as flight is rare within some dyads. The log-linear transformation drops observations with zero values because $ln(0)$ is undefined. Generally, researchers have avoided this problem by adding a small positive quantity to the dependent variable prior to logging. Most often, this entails taking ln(Dependent Variable + 1). However, this procedure leads to inconsistent parameter estimates because the gravity framework requires that 1 is added to both the dependent variable and the explanatory regressors. In turn, if 1 is added to variables on both sides of the equation, the log-linear transformation is rendered infeasible (Echevarria and Gardeazabal, 2016, p. 266).

In light of these problems, some scholars advocate for zero-truncated (Rüegger and Bohnet, 2018) or zero-inflated (Moore and Shellman, 2007) models. Unfortunately, neither of these approaches alleviates methodological concerns. On one hand, truncated estimators that exclude zero-valued observations suffer from significant bias (Martin and Pham, 2015). On the other hand, zero-inflated models make the untenable assumption that some zero-valued observations are structural and others arise naturally from a count process (Cameron and Trivedi, 2013). In the context of refugee flight, zero-inflation is theoretically inappropriate because migrant stocks are generated by a single process. There are no structural factors precluding flight within any dyad, merely factors, like

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[1]See Head and Mayer (2014) for an overview of gravity estimation.

distance, making it more or less probable. Secondarily, zero-inflated estimators suffer the additional drawback that they are sensitive to the scale of the dependent variable.

A prominent alternative approach to gravity estimation uses an exponential function to model the conditional mean of the dependent variable. In particular, the Poisson pseudo-maximum likelihood (PPML) estimator is preferred under broad conditions (Martin and Pham, 2015). PPML is a weighted, non-linear least squares estimator, and critically, neither requires that the data follow a Poisson distribution nor that they take strictly integer values (Santos Silva and Tenreyro, 2006, p. 645). The PPML estimator also shares the same first-order conditions as the standard Poisson maximum likelihood estimator. Alleviating concerns outlined above about the presence of many zeroes, Santos Silva and Tenreyro (2011) show that PPML is well-behaved in the presence of excess zeroes, and that the estimator makes no assumptions about dispersion. Because PPML only requires that the conditional variance is proportional to the conditional mean, not necessarily equal to it, the estimator is valid in the presence of under-, equi-, and over-dispersion.

We employ PPML in our core specifications. Introducing this weighted, non-linear least squares estimator to the political science migration literature is an important contribution of this paper because while problems with log-linearized models and advantages to multiplicative gravity estimation are generally recognized in the economics literature (Beine, Bertoli, and Moraga, 2016; Docquier et. al. 2016), best practices have not diffused to political science (but see Giménez-Gómez, Walle, and Zergawu, 2019). A second, related estimator, the negative binomial pseudo-maximum likelihood (NBPML) estimator, has also gained some acceptance. NBPML is a modified PPML estimator, but unlike PPML it is sensitive to the scale of the dependent variable.

Our gravity model of forced migration takes the following form:

$$Y_{o,a,t} = exp(\alpha_o + \beta_a + \gamma t + \eta_{a \cdot t} + \delta(\text{Policy}_{a,t-1,5} \cdot \text{Facilitators}_{o,a,t-1}) + \lambda(G_{s,t}) +$$
$$\phi(X_{o,t-1}) + \mu(Z_{a,t-1}) + \epsilon_{o,a,t})$$

Where $Y_{o,a,t}$ is the conditional mean of the arrival rate of forced migrants from country of origin o to country of asylum a in year t, and δ captures the interactive effect of the policy score and facilitators, like information openness and the presence of transnational kin, that are key to realizing the benefits of liberal *de jure* policy provisions. $G_{s,t}$ is a vector of standard, gravity controls like distance, contiguity, and linguistic and ethnic linkages for origin-destination dyad s; $X_{o,t-1}$ is a vector of lagged covariates specific to origin country o in year *t-1*; $Z_{a,t-1}$ is a vector of lagged covariates specific to country of asylum a in year *t-1*; α_o is a fixed effect accounting for time-invariant characteristics of origin o; β_a is a fixed effect accounting for time-invariant characteristics of asylum a; γ_t is a fixed effect accounting for factors common to each year; and $\epsilon_{o,a,t}$ is the error term.[2] We cluster standard errors by dyad to account for correlated disturbance terms within origin-asylum pairs.

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[2]The structure of the fixed effects follows Fally (2015) to account for "multilateral resistance," or barriers between an origin state and flows to all potential destinations.

S.36: Data Description for Gravity Models

Our dependent variable is the arrival rate, defined as the number of asylum applications plus prima facie refugee arrivals divided by the country of origin population in hundreds of thousands. Asylum-seekers are defined as individuals seeking refugee status but not yet recognized as such by host country authorities or UNHCR. Prima facie refugees are those recognized without individual status determination because readily apparent conditions in their home country warrant their recognition as refugees. We focus on asylum-seeker and prima facie refugee arrivals because refugee recognition on the basis of individual status determination is endogenous to asylum policy (Hatton 2016). Data on the directed dyadic number of asylum-seeker applications are provided by the UNHCR Population Statistics Database, which compiles information from reports by UN country officers, non-governmental organizations, and government agencies.[3] These data are widely used in the literature, and are available for all countries from 2000 to 2016.[4] Thus, although our data on asylum and refugee policies extend from 1951-2017, data availability limitations mean we can only use that portion of our data covering 2000-2016, for which the dependent variable is available. Data on the directed dyadic number of prima facie arrivals come from data released by the UNHCR to Fearon and Shaver (2019).

The core independent variable in our analyses is the country-level asylum policy index score. Specifically, for each country of asylum-year we take the policy score of the most recently passed or amended national-level law pertinent to forced migration. Because the quantity of interest we aim to capture is the *de jure* policy environment in a given country it makes sense to use the score of the most recently passed or amended law since recently codified laws are likely to be those most representative of the enforcement environment in a given country.[5] In alternate specifications we also disaggregate the full policy score into scores for each of the five policy fields—access, services, livelihoods, movement, and participation—in order to assess which elements of asylum policy are most important. Because countries' scores are relatively slow moving over time, and because policies often require several years to take force, we construct a five-year lagged moving average of the policy index.[6]

Apart from our policy measure, our core specification includes dyadic controls for inter-capital distance, territorial contiguity, common language, transnational ethnic kin, the GDP per capita ratio and its squared term; and country-level variables for both origin

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[3]UNHCR data (available at https://bit.ly/1RTFBs2) are only reported when they take strictly positive values, and the standard practice is to fill all missing values with zero (Echevarria and Gardeazabal, 2016; Marbach, 2018). We adopt this approach in our primary analyses.

[4]While the UNHCR report data on asylum applications to a select group of 33 industrialized (mostly European) states back to 1980, dyadic asylum-seeker data for the countries covered in DWRAP are only available from 2000.

[5]It is always important to remember that DWRAP measures de jure policy outputs, not necessarily de facto policy outcomes. Systematically measuring implementation of laws on forced migration in a cross-national time-series fashion is extraordinarily difficult.

[6]García (2014) shows that the computation of moving averages is inferentially consequential. By taking the five-year lagged moving average, we center the policy score on the third year prior to the year in which the dependent variable is measured. Our main results hold when we use simple three and five-year lags of the policy index, rather than moving averages.

and asylum states, such as population, unemployment rate, civil conflict incidence, and democracy score.

We test our assumption of policy knowledge empirically. If information diffusion about asylum policies is necessary for policies to affect asylum-seekers flows, an observable implication is that there should be an interaction effect between policy liberality and factors presumed to increase policy awareness and information diffusion. Based on in-person interviews in Uganda, we posit two factors that magnify policy knowledge. First, communication technologies facilitate information diffusion. In particular mobile and internet penetration have enabled migrants to gain policy knowledge. To capture these factors we use mobile penetration (measured by subscriptions per capita) and an index of information globalization (Dreher, 2006). Second, building on theories of information diffusion within ethnic networks (Larson and Lewis, 2017), ethnic kin networks are also expected to be central to transnational transmission of information. Cross-border kin groups can relay information about both *de jure* policy changes and details of *de facto* policy realities, in addition to easing migrant integration efforts.

S.37: Measurement Challenges and UNHCR Data

Data quality and measurement error are central limitations confronting quantitative studies of forced displacement. Indeed, during complex crises, UNHCR officials are often tasked with enumerating hundreds of thousands or millions of refugees across large, remote, poorly administered areas, and often in the face of host government obstruction (Crisp, 1999, p. 6). Complicating measurement further, asylum-seekers and refugees often move frequently within and between countries and take steps to conceal their real identities, mainly due to safety concerns stemming from the nature of the threats they flee—persecution, discrimination, and war. Even data on voluntary migrant flows, which are easier to track than forced migrant flows, are only available for 18 OECD countries from 1980 to 2006 (Fitzgerald, Leblang, and Teets, 2014: 415). These measurement challenges must be kept in mind when interpreting our gravity results.

Variable Definitions and Sources: Gravity Models

Descriptions and sources for all variables used in the analysis can be found here. CoO refers to Country of Origin and CoA refers to Country of Asylum.

Table S.38: Variable Definitions and Sources: Gravity Models

Variable	Definition	Source
Dependent Variables		
Forced Migrant Arrival Rate	$\dfrac{\text{Prima facie refugees} + \text{asylum applications from origin to destination}}{\text{Origin population in 100,000s}}$	Fearon and Shaver (2019), UNHCR, and PWT
Independent Variables		
Asylum Policy Index	5-year moving average of asylum policy score	DWRAP
Access Policy Index	5-year moving average of access policy score	DWRAP
Services Policy Index	5-year moving average of services policy score	DWRAP
Livelihoods Policy Index	5-year moving average of livelihoods policy score	DWRAP
Movement Policy Index	5-year moving average of movement policy score	DWRAP
Participation Policy Index	5-year moving average of participation policy score	DWRAP
Mobile Penetration in CoO	Origin in the top quartile of mobile subscriptions per capita	WDI
Information Openness in CoO	Information globalization index in origin	Dreher (2006)
Transnational Ethnic Kin	Shared politically-relevant transnational ethnic kin ties	EPR
Control Variables		
Inter-Capital Distance	Inverse hyperbolic sine of inter-capital distance	CShapes
Territorial Contiguity	Shared land border	CShapes
Common Official Language	Common official/administrative language	CEPII
Bilateral Migrant Stock	Inverse hyperbolic sine of total migrant flows in prior five year	Azose and Raftery (2019)
African Dyad	African dyad	–
Middle Eastern Dyad	Middle Eastern dyad	–
South Asian Dyad	South Asian dyad	–
Population in CoO	Inverse hyperbolic sine of origin population	PWT
Population in CoA	Inverse hyperbolic sine of destination population	PWT
GDP/capita Ratio	Inverse hyperbolic sine of $\left(\dfrac{\text{PPP-adjusted Destination GDP/capita}}{\text{PPP-adjusted Origin GDP/capita}}\right)$	PWT
GDP/capita Ratio^2	Inverse hyperbolic sine of $\left(\dfrac{\text{PPP-adjusted Destination GDP/capita}}{\text{PPP-adjusted Origin GDP/capita}}\right)^2$	PWT
Unemployment in CoO	Inverse hyperbolic sine of unemployment rate in origin	WDI
Unemployment in CoA	Inverse hyperbolic sine of unemployment rate in destination	WDI
Civil War in CoO	Occurrence of civil war (25+ battle deaths) in origin	UCDP/PRIO
Civil War in CoA	Occurrence of civil war (25+ battle deaths) in destination	UCDP/PRIO
Repression in CoO	Reverse-scaled latent human rights index in origin	Fariss (2019)
Repression in CoA	Reverse-scaled latent human rights index in destination	Fariss (2019)

Descriptive Statistics: Gravity Models

Summary statistics for all variables used in the analysis can be found here. CoO refers to Country of Origin and CoA refers to Country of Asylum.

Table S.39: Descriptive Statistics: Gravity Models

	Observations	Mean	Std. Dev.	Minimum	Maximum
Dependent Variables:					
Forced Migrant Arrival Rate	130817	1.097224	41.2646	0	5114.048
Independent Variables:					
Policy Index (5 Yr. MA)	321282	.1467213	.1367037	0	1
Access Index (5 Yr. MA)	321282	.2683493	.2416118	0	1
Services Index (5 Yr. MA)	321282	.1147776	.1550298	0	.9055791
Livelihoods Index (5 Yr. MA)	321282	.1305719	.1447689	0	.8911608
Movement Index (5 Yr. MA)	321282	.3367562	.2665507	0	1
Participation Index (5 Yr. MA)	321282	.0468285	.0846325	0	1
High Mobile Penetration in CoO	282981	.2500839	.4330619	0	1
Information Openness in CoO	297857	3.873906	1.881515	.2547503	9.403471
Transnational Ethnic Kin	330690	.1328767	.339442	0	1
Control Variables:					
Inter-capital Distance	338628	8.939322	.6885742	5.021536	10.15057
Territorial Contiguity	346722	.0399282	.1957909	0	1
Common Language	338628	.4738888	.4993185	0	1
Bilateral Migrant Stock	162024	2.139785	3.227431	0	14.9454
Africa Dyad	346722	.4118112	.492162	0	1
Middle East Dyad	346722	.072075	.2586125	0	1
South Asia Dyad	346722	.0064893	.0802948	0	1
Population in CoO	331171	4.786992	1.663238	.5627444	10.18427
Population in CoA	331171	4.786992	1.663238	.5627444	10.18427
GDP/Capita Ratio	303052	1.310814	1.299713	.0009941	7.606859
GDP/Capita Ratio^2	303052	4.15775	1.511929	2.45e-08	14.50718
Unemployment Rate in CoO	186662	2.589026	.7995792	.1395466	4.481027
Unemployment Rate in CoA	186662	2.589026	.7995792	.1395466	4.481027
Civil War in CoO	339204	.2180517	.4129233	0	1
Civil War in CoA	339204	.2180517	.4129233	0	1
Repression in CoO	337436	.5060893	1.164501	-3.334726	3.767393
Repression in CoA	330942	.5096887	1.166882	-3.334726	3.767393

Correlation of Variables: Gravity Models

To allay concerns about collinearity, we plot the correlation matrix of our policy score and control variables. Figure S.40 shows that none of the control variables are too highly correlated, lending confidence in our specification.
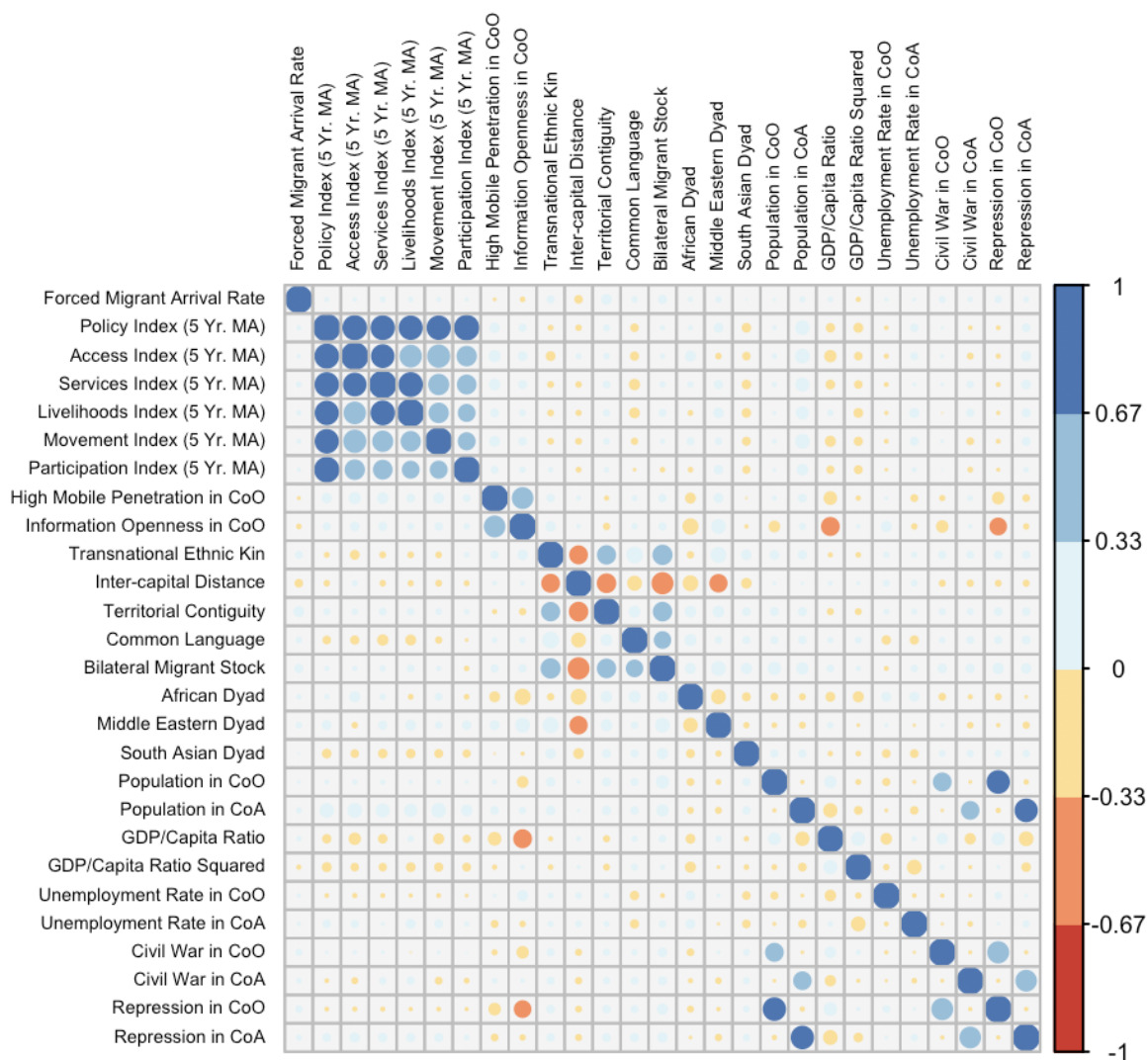

Figure S.40: Correlogram of Key Variables in Gravity Models

Regression Results for Table 6

Table S.41: Full Model Results for Table 6

VARIABLES	(1) PPML	(2) PPML	(3) PPML
Asylum Policy Index (5 Yr. MA) x Mobile	2.184*		
	(1.166)		
Mobile Penetration	-0.644		
	(0.503)		
Asylum Policy Index (5 Yr. MA) x Info		1.414**	
		(0.628)	
Information Openness		-1.009**	
		(0.438)	
Asylum Policy Index (5 Yr. MA) x Kin			3.238**
			(1.358)
Transnational Ethnic Kin	0.728***	0.625***	-0.022
	(0.173)	(0.203)	(0.342)
Asylum Policy Index (5 Yr. MA)	-0.253	-6.866**	-1.345
	(1.849)	(2.841)	(1.287)
Inter-capital Distance	-0.915***	-0.867***	-0.973***
	(0.226)	(0.224)	(0.220)
Territorial Contiguity	1.925***	1.566***	1.637***
	(0.288)	(0.256)	(0.300)
Common Language	0.852***	0.800***	0.815***
	(0.254)	(0.291)	(0.253)
Bilateral Migrant Stock	0.229***	0.274***	0.244***
	(0.042)	(0.052)	(0.044)
Population in CoO	3.133	1.999	3.041
	(2.768)	(3.035)	(2.784)
Population in CoA	1.107	2.539	0.341
	(2.028)	(1.836)	(1.985)
GDP/Capita Ratio	0.204	0.200	0.274
	(0.458)	(0.483)	(0.484)
GDP/Capita Ratio^2	-0.006	-0.032	-0.027
	(0.069)	(0.072)	(0.076)
Unemployment in CoO	2.328***	2.236***	2.307***
	(0.636)	(0.648)	(0.675)
Unemployment in CoA	-1.044**	-0.854**	-1.002**
	(0.446)	(0.413)	(0.502)
Civil War in CoO	0.474	0.621*	0.495
	(0.338)	(0.322)	(0.323)
Civil War in CoA	-0.275	-0.238	-0.235
	(0.296)	(0.274)	(0.306)
Repression in CoO	1.147***	0.847***	1.134***
	(0.258)	(0.240)	(0.266)
Repression in CoA	0.228	0.415*	0.183
	(0.203)	(0.238)	(0.217)
Africa Dyad	0.684	0.256	0.527
	(0.803)	(0.782)	(0.769)
Middle East Dyad	-0.844	-0.207	-0.615
	(0.837)	(0.800)	(0.803)
South Asia Dyad	1.791*	2.189**	2.087*
	(1.011)	(0.993)	(1.069)
CoO FE	✓	✓	✓
CoA FE	✓	✓	✓
Year FE	✓	✓	✓
Constant	-18.127*	-15.284	-15.373
	(10.319)	(10.384)	(10.700)
Observations	119,399	119,238	119,719

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by dyad are in parentheses; CoO refers to country of origin and CoA refers to country of asylum.

Regression Results for Figure 8

<div align="center">

Table S.42: Full Model Results for Figure 8

</div>

Panel A: Results from the Top Panel of Figure 8

VARIABLES	(1) Access	(2) Services	(3) Livelihoods	(4) Movement	(5) Participation
Asylum Policy Index (5 Yr. MA) x Mobile	0.352	1.384	1.668*	1.122	2.035
	(0.668)	(0.887)	(0.885)	(1.140)	(1.933)
Mobile Penetration	-0.047	-0.306	-0.377	-0.632	-0.207
	(0.462)	(0.371)	(0.453)	(0.807)	(0.378)
Transnational Ethnic Kin	0.743***	0.760***	0.706***	0.710***	0.722***
	(0.176)	(0.174)	(0.178)	(0.172)	(0.177)
Asylum Policy Index (5 Yr. MA)	1.547*	1.732	-1.290	-0.440	-0.019
	(0.870)	(1.132)	(1.057)	(0.701)	(2.967)
Constant	-16.402	-17.936*	-21.839**	-20.621**	-18.289*
	(10.144)	(9.335)	(10.560)	(9.398)	(9.664)
Observations	119,399	119,399	119,399	119,399	119,399

Panel B: Results from the Middle Panel of Figure 8

VARIABLES	(1) Access	(2) Services	(3) Livelihoods	(4) Movement	(5) Participation
Asylum Policy Index (5 Yr. MA) x Info	1.088***	0.953***	1.069***	0.898**	0.726
	(0.305)	(0.267)	(0.398)	(0.401)	(1.294)
Information Openness	-0.997**	-0.857**	-0.977**	-1.063**	-0.654
	(0.398)	(0.389)	(0.421)	(0.431)	(0.400)
Transnational Ethnic Kin	0.726***	0.651***	0.641***	0.625***	0.667***
	(0.209)	(0.201)	(0.201)	(0.210)	(0.210)
Asylum Policy Index (5 Yr. MA)	-3.308**	-2.254	-6.054***	-4.187**	-4.789
	(1.380)	(1.482)	(1.993)	(1.701)	(5.453)
Constant	-13.273	-14.348	-16.141	-13.389	-11.843
	(10.519)	(10.148)	(10.424)	(9.925)	(10.096)
Observations	119,238	119,238	119,238	119,238	119,238

Panel C: Results from the Bottom Panel of Figure 8

VARIABLES	(1) Access	(2) Services	(3) Livelihoods	(4) Movement	(5) Participation
Asylum Policy Index (5 Yr. MA) x Kin	1.303**	1.562**	2.526**	2.771***	2.908
	(0.581)	(0.781)	(1.137)	(0.881)	(2.256)
Transnational Ethnic Kin	0.197	0.429*	0.174	-0.727	0.504*
	(0.286)	(0.225)	(0.261)	(0.444)	(0.263)
Asylum Policy Index (5 Yr. MA)	0.535	1.017	-2.393**	-2.222***	-0.689
	(0.951)	(1.243)	(1.161)	(0.836)	(1.617)
Constant	-15.527	-17.275*	-20.057*	-16.098*	-17.524*
	(10.107)	(9.619)	(10.588)	(8.979)	(10.339)
Observations	119,719	119,719	119,719	119,719	119,719

Note: *** $p<0.01$, ** $p<0.05$, * $p<0.1$; robust standard errors clustered by dyad are in parentheses; CoO refers to country of origin and CoA refers to country of asylum; all models contain a full set of control variables, along with fixed effects for CoO, CoA, and year.

Robustness With Equally-Weighted Index

Our main results from the gravity models are robust to using an equally-weighted asylum policy index, rather than the inverse covariance-weighted index employed in Table 6.

Table S.43: Table 6 With an Equally-Weighted Index

VARIABLES	(1) PPML	(2) PPML	(3) PPML
Asylum Policy Index (5 Yr. MA) x Mobile Penetration in CoO	1.586* (0.843)		
Mobile Penetration in CoO	-0.574 (0.477)		
Asylum Policy Index (5 Yr. MA) x Information Openness in CoO		1.321*** (0.425)	
Information Openness in CoO		-1.056** (0.425)	
Asylum Policy Index (5 Yr. MA) x Transnational Ethnic Kin			2.470*** (0.928)
Transnational Ethnic Kin	0.751*** (0.173)	0.641*** (0.200)	0.016 (0.305)
Asylum Policy Index (5 Yr. MA)	0.625 (1.409)	-5.099** (1.996)	-0.480 (1.136)
Controls	Y	Y	Y
CoO FE	Y	Y	Y
CoA FE	Y	Y	Y
Year FE	Y	Y	Y
Constant	-16.513 (10.288)	-14.367 (10.515)	-14.548 (10.440)
Observations	119,399	119,238	119,719

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by dyad are in parentheses; CoO refers to country of origin and CoA refers to country of asylum.

Robustness With 5 Year Lag

Our main results from the gravity models are robust to using the five-year lagged asylum policy index, rather than the five-year lagged moving average of the asylum policy index employed in Table 6.

Table S.44: Table 6 With 5 Year Lag of Policy Index

VARIABLES	Policy Index (5 Yr. Lag)			Equally-Weighted Policy Index (5 Yr. Lag)		
	(1) PPML	(2) PPML	(3) PPML	(4) PPML	(5) PPML	(6) PPML
Asylum Policy Index (5 Yr. Lag) x Mobile Penetration in CoO	2.408** (1.026)			1.712** (0.742)		
Mobile Penetration in CoO	-0.677 (0.460)			-0.597 (0.437)		
Asylum Policy Index (5 Yr. Lag) x Information Openness in CoO		1.605*** (0.535)			1.415*** (0.389)	
Information Openness in CoO		-1.057** (0.428)			-1.082*** (0.419)	
Asylum Policy Index (5 Yr. Lag) x Transnational Ethnic Kin			2.184** (0.980)			1.749** (0.742)
Transnational Ethnic Kin	0.712*** (0.177)	0.629*** (0.203)	0.273 (0.249)	0.734*** (0.177)	0.643*** (0.202)	0.272 (0.247)
Asylum Policy Index (5 Yr. Lag)	-0.761 (0.935)	-6.273*** (2.183)	-1.010 (0.671)	-0.014 (0.780)	-4.960*** (1.661)	-0.511 (0.617)
Controls	Y	Y	Y	Y	Y	Y
CoO FE	Y	Y	Y	Y	Y	Y
CoA FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Constant	-20.268** (9.651)	-16.109 (10.408)	-18.568* (9.733)	-19.062* (9.726)	-16.400 (10.314)	-17.674* (9.766)
Observations	119,723	119,566	120,047	119,723	119,566	120,047

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by dyad are in parentheses; CoO refers to country of origin and CoA refers to country of asylum.

Robustness to 3 Year Window of Policy Index

Our main results from the gravity models are robust to using a three-year lagged moving average and the three-year lag of the asylum policy index, rather than the five-year window considered in Table 6.

Table S.45: Table 6 With 3 Year Moving Average and 3 Year Lag of Policy Index

Panel A: 3 Year Moving Average of Policy Index						
	Policy Index (3 Yr. MA)			Equally-Weighted Policy Index (3 Yr. MA)		
VARIABLES	(1) PPML	(2) PPML	(3) PPML	(4) PPML	(5) PPML	(6) PPML
Asylum Policy Index (3 Yr. MA) x Mobile Penetration in CoO	1.650 (1.170)			1.279 (0.847)		
Mobile Penetration in CoO	-0.486 (0.493)			-0.464 (0.466)		
Asylum Policy Index (3 Yr. MA) x Information Openness in CoO		1.008 (0.613)			0.988** (0.421)	
Information Openness in CoO		-0.895** (0.435)			-0.939** (0.427)	
Asylum Policy Index (3 Yr. MA) x Transnational Ethnic Kin			3.263** (1.367)			2.562*** (0.959)
Transnational Ethnic Kin	0.737*** (0.175)	0.646*** (0.205)	-0.074 (0.378)	0.745*** (0.176)	0.658*** (0.202)	-0.061 (0.340)
Asylum Policy Index (3 Yr. MA)	0.308 (1.776)	-5.587** (2.712)	-1.359 (1.205)	0.927 (1.308)	-4.038** (1.869)	-0.551 (1.041)
Constant	-17.100* (10.139)	-14.461 (10.018)	-14.679 (10.461)	-15.836 (10.076)	-12.898 (10.267)	-14.047 (10.243)
Observations	119,563	119,402	119,883	119,563	119,402	119,883

| Panel B: 3 Year Lag of Policy Index						
	Policy Index (3 Yr. Lag)			Equally-Weighted Policy Index (3 Yr. Lag)		
VARIABLES	(1) PPML	(2) PPML	(3) PPML	(4) PPML	(5) PPML	(6) PPML
Asylum Policy Index (3 Yr. Lag) x Mobile Penetration in CoO	2.690** (1.247)			2.099** (0.922)		
Mobile Penetration in CoO	-3.506** (1.735)			-2.883** (1.397)		
Asylum Policy Index (3 Yr. Lag) x Information Openness in CoO		1.795*** (0.607)			1.575*** (0.450)	
Information Openness in CoO		-2.908*** (0.919)			-2.732*** (0.770)	
Asylum Policy Index (3 Yr. Lag) x Transnational Ethnic Kin			4.096*** (1.215)			2.945*** (0.915)
Transnational Ethnic Kin	0.755*** (0.172)	0.614*** (0.198)	-4.325*** (1.509)	0.772*** (0.172)	0.633*** (0.194)	-3.076*** (1.191)
Asylum Policy Index (3 Yr. Lag)	0.827 (1.640)	-7.194*** (2.556)	-0.909 (0.944)	1.111 (1.229)	-5.544*** (1.878)	-0.358 (0.895)
Constant	-15.344 (10.574)	-7.732 (10.535)	-10.751 (10.960)	-15.399 (10.470)	-9.434 (10.523)	-12.160 (10.507)
Observations	119,726	119,566	120,047	119,726	119,566	120,047

Note: *** p<0.01, ** p<0.05, * p<0.1; robust standard errors clustered by dyad are in parentheses; CoO refers to country of origin and CoA refers to country of asylum; all models contain a full set of control variables, along with fixed effects for CoO, CoA, and year.

Figure S.46: Generalized Synthetic Control Method

Our primary estimations in the policy extension section of the main text use a PPML gravity model with directed-dyad years as the unit of analysis. Although gravity models are the best known approach for estimating flows between countries (Anderson, 2011), they require strong identification assumptions associated with panel-data methods. In particular, the PPML estimations must define a causal model of FDP flows, and estimate a single effect of policy liberalization, rather than an effect allowed to vary across countries. PPML will also be biased in the presence of unobserved time-varying confounders. To assess the robustness of our PPML results we estimate comparable models using generalized synthetic controls (Xu, 2017).

In the generalized synthetic control framework, we define a predictive model of flows to a destination country, and compare the observed effect of asylum policy liberalization on flows to each destination's unique counterfactual flow absent liberalization. The estimation uses a latent factor approach, fitting an interactive, two-way (unit and time) fixed effects model using control units, then obtaining latent factors and estimating factor loadings for treated units by projecting pretreatment treated outcomes onto the factor space. In the final step, the method imputes treated counterfactual outcomes based on estimated loadings (Xu, 2017, p. 58). The unit of analysis is the country-year. Treatment is defined as asylum policy liberalization such that a country's score is in the top quartile of all asylum policy scores. The dependent variable is the number of FDP arrivals in a country-year. We estimate separate models for all arrivals and arrivals from origins linked by transnational ethnic kin. The predictive model we fit controls for population, GDP/capita, repression, democracy, unemployment, and civil war in destinations, as well as intense civil war episodes in each destination's region.

Figure S.46: Raw Data for Treated and Control Units in Synthetic Controls Estimations
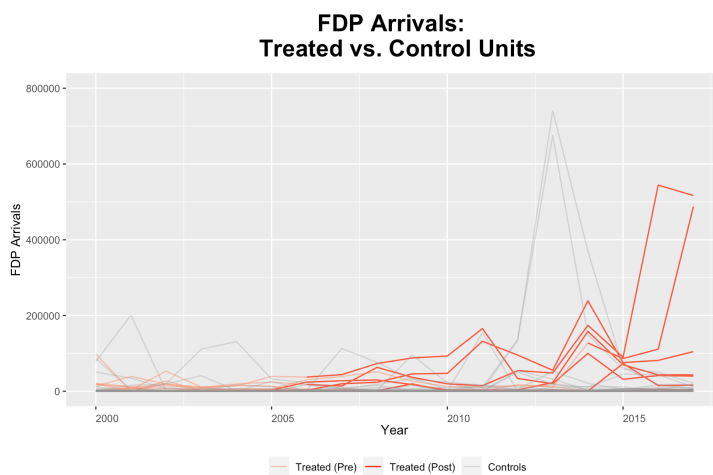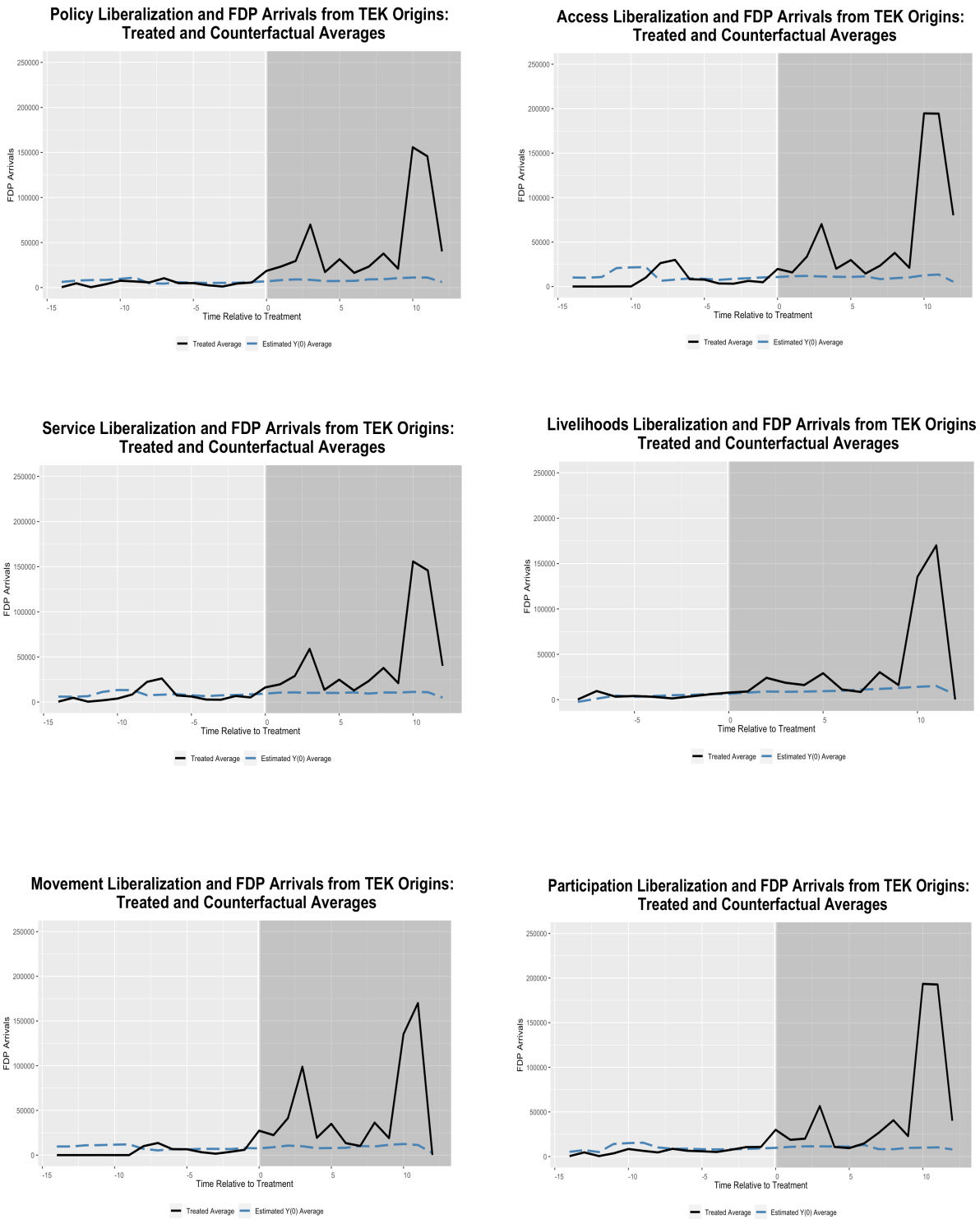

Note: The plot shows raw data on FDP flows (asylum applications + prima facie refugee arrivals) for all units. Light gray lines are flows to control units from which counterfactual averages are estimated. Light orange lines are flows to treated units in the pre-treatment period. Dark orange lines are flows to treated units in the post-treatment period

Figure S.47: ATT vs. Counterfactual (All Arrivals)
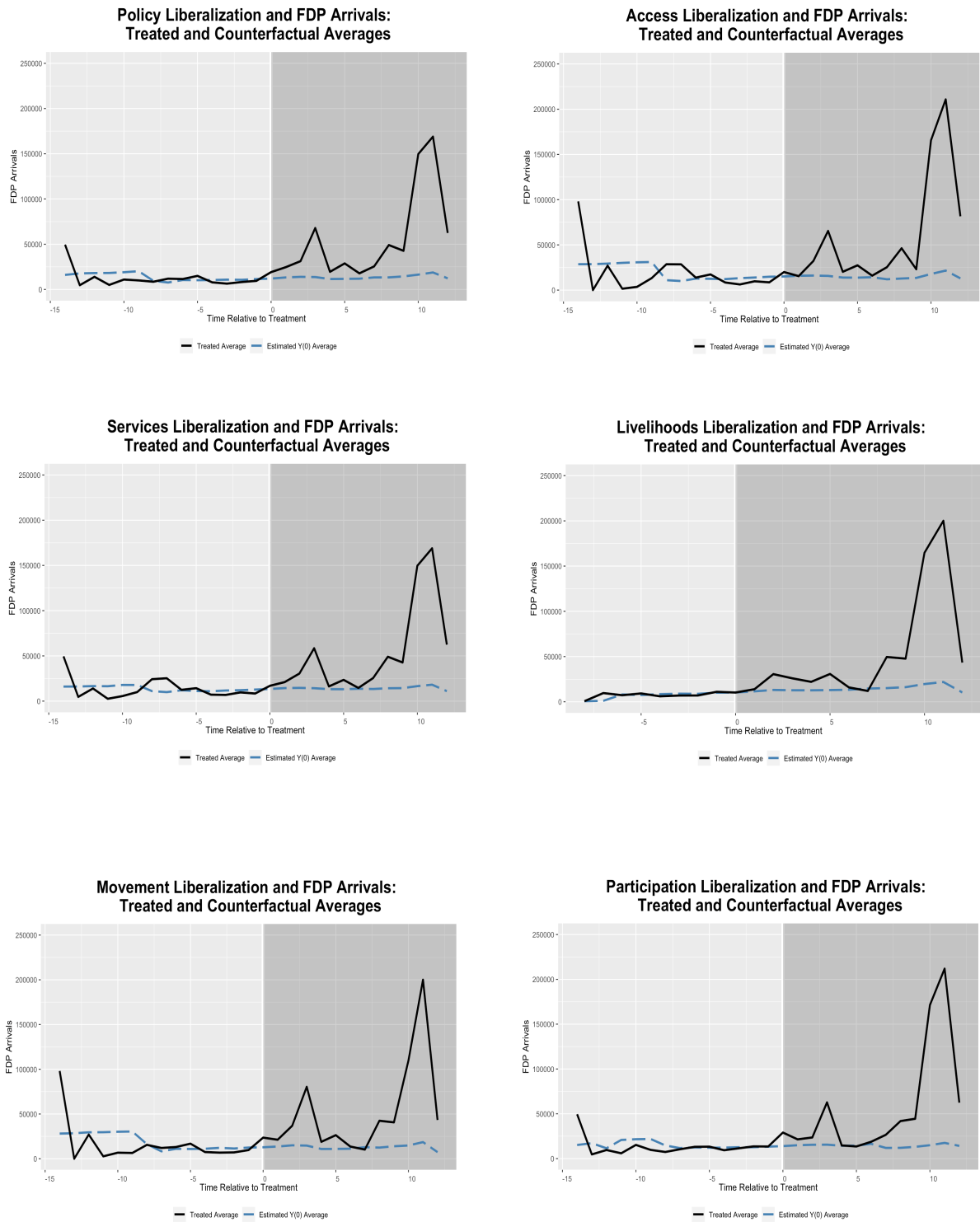
Note: Dashed blue lines are estimated counterfactual averages, and the thick black line captures the average treatment effect on the treated (ATT). The left half (light gray) of each plot shows the pre-treatment period and the right half (dark gray) shows the post-treatment period.

Figure S.48: ATT vs. Counterfactual (TEK Arrivals)

Policy Liberalization and FDP Arrivals from TEK Origins:
Treated and Counterfactual Averages

Access Liberalization and FDP Arrivals from TEK Origins:
Treated and Counterfactual Averages

Service Liberalization and FDP Arrivals from TEK Origins:
Treated and Counterfactual Averages

Livelihoods Liberalization and FDP Arrivals from TEK Origins
Treated and Counterfactual Averages

Movement Liberalization and FDP Arrivals from TEK Origins:
Treated and Counterfactual Averages

Participation Liberalization and FDP Arrivals from TEK Origins:
Treated and Counterfactual Averages

Note: Dashed blue lines are estimated counterfactual averages, and the thick black line captures the average treatment effect on the treated (ATT). The left half (light gray) of each plot shows the pre-treatment period and the right half (dark gray) shows the post-treatment period.

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