IMF: International Migration Fund[*]

Merih Angin[*], Albana Shehaj[†], and Adrian J. Shin[‡]

[*]*Weatherhead Center for International Affairs at Harvard University*

[†]*Department of Political Science at the University of Michigan*

[‡]*Department of Political Science at the University of Colorado Boulder*

January 9, 2019

Abstract

Existing models of international organizations focus on the strategic and special interests of major shareholders to explain why some countries can secure better deals from international organizations. Focusing on the International Monetary Fund, we argue that migration is an important consideration among the IMF's major shareholders. Stringent loan conditions often exacerbate short-term economic distress in the recipient country, which in turn causes more people to migrate to countries where their co-ethnics reside. Therefore, major IMF shareholders that host a large number of nationals from the recipient country face a disproportionately high level of migration pressure when the IMF places demanding loan conditions on the recipient country. Since the citizens of major IMF shareholder countries tend to oppose immigration inflows, we argue policymakers from these countries will pressure the IMF to minimize short-term adjustment costs in the recipient country when they host a large number of the country's nationals. Analyzing all IMF programs from 1978 to 2013, we test our hypothesis that IMF recipients with larger diasporas in the major IMF shareholder countries tend to secure better arrangements from the IMF. Our findings confirm that when migration pressures on the G5 countries are present, recipient countries receive larger loan disbursements and more lenient labor conditions.

Why do international organizations (IOs) favor some countries over others? The role of IOs in facilitating interstate cooperation is well documented. Their perceived impartiality, expertise, and organizational capacity grant them considerable influence in both international and domestic politics (Abbott and Snidal 1998; Barnett and Finnemore 1999; Finnemore and Sikkink 1998; Krasner 1982). Yet IOs also operate in the shadow of state power. When state interests diverge from the policy goals of IOs, powerful donor states may seek to "capture" the functions of the organization. Indeed, the International Monetary Fund (IMF)—one of the core Bretton Woods institutions—is frequently argued to be an agent of its most powerful shareholders (e.g., Copelovitch 2010b; Dreher and Jensen 2007; Dreher, Sturm, and Vreeland 2009; Oatley and Yackee 2004; Stone 2004; 2008; Thacker 1999). This has led some borrowing countries receiving better or worse deals from the IMF depending on the strategic and special interests of creditor states. Such behavior is important to understand given that favoritism is likely to compromise the independence and legitimacy that constitute IO influence and authority (Barnett and Finnemore 2004; Stone 2011, pp. 1-2). Using the IMF as a point of focus, this article aims to improve our understanding in what drives differences in treatment from IOs.

We complement previous research that underscores the role of state interests, but we instead highlight international migration as a concern that shapes the decision-making calculus of the IMF's major shareholders. Specifically, we argue that when IMF loan recipients are major migrant-sending countries with large diasporas in G5 states (i.e., the US, the UK, France, Germany, and Japan), they are more likely to receive larger loans and less stringent forms of conditionality than otherwise. We propose the following causal mechanism: smaller loans and stringent loan conditions exacerbate short-term economic distress in the recipient country, which in turn encourages more citizens to migrate to countries where their co-ethnics reside. Accordingly, major IMF donors that host a large number of nationals from the recipient country face disproportionately high levels of migration pressure when the IMF imposes relatively demanding loan conditions. Since

citizens of major IMF shareholders generally oppose immigration inflows—especially those from sending countries under financial distress—policymakers of the Fund's major shareholders are likely to use their influence within the IMF to assuage migration pressure.

In assessing our central argument, this article focuses on three particular aspects of IMF program design: (1) the size of loan; (2) the stringency of conditions attached to IMF loans; and (3) the number of condition waivers granted to the borrowing country during program implementation. To test our theoretical expectation that migration concerns drive the conditionality of IMF programs, we analyze the policy space from 1978 to 2013 by utilizing a new dataset on IMF conditionality from Kentikelenis, Stubbs, and King (2016). This comprehensive dataset allows us to disaggregate IMF conditionality by targeted policy types—a relatively new practice in the literature. We find support for our theoretical expectation that IMF loan recipients with large diasporas in the G5 countries receive larger loans and more favorable conditions. This is especially the case when the recipient country experiences negative or slow economic growth.

This migration concern among the IMF's shareholders helps elucidate the Fund's policy stances that are otherwise puzzling. For instance, regarding emigration from Eastern to Western Europe, the IMF explicitly expressed in 2016 that "policies in sending countries should focus on creating an environment that encourages potential emigrants to stay" (Atoyan, Christiansen, Dizioli et al. 2016, p. 30). The Fund also emphasized the need to promote return migration, to institute active labor-market policies within sending states, and to direct EU structural funds in order to better raise labor productivity and incomes in Eastern European economies (Atoyan, Christiansen, Dizioli et al. 2016, pp. 31-34). Here, G5 concerns over migration can explain why the IMF—an organization typically viewed as an advocate of free factor flows and limited government intervention—would nevertheless oppose the movement of workers across international borders.

While previous studies of IMF lending focused on the politics of special interests in the G5 countries (Breen 2014; Copelovitch 2010a; b), our emphasis on migration pressure

highlights how domestic concerns over migration shape the preferences of G5 policymakers, which in turn influence the Fund's lending decisions. In other words, our argument demonstrates that the G5 countries use their influence at the Fund not only to appease their powerful special interest groups but also to preempt anxiety among their voters about economic globalization. In this article, we focus on international migration, as it is arguably the most contentious aspect of international economic integration for many voters in the G5 countries. Our approach opens up a new venue of research in the literature on IMF lending, specifically how popular politics within the G5 states shapes the global governance strategy of a powerful international organization.[1]

We organize our article in the following manner. We begin with a discussion of IMF conditionality and then formulate a series of testable hypotheses in line with the main argument. We use the case of Romania—one of the largest migrant-sending states that received a sizable loan from the Fund in 2009—to illustrate how Romanian immigration patterns have shaped the conditionality of its IMF program. We proceed by detailing the research design used to test each of our hypotheses. Finally, we discuss our findings and their implications for both the international political economy and international migration literature. These implications suggest several avenues of future research on the link between migration and the conditionality of IMF loan programs.

G5 Countries and the IMF: International Migration Fund

Theoretical Perspectives

Why does the IMF favor some countries over others? Given the enormous economic, social, and political implications of IMF lending, conditionality has been a popular academic research topic and the subject of a heated policy debate. At the center of the Fund's

---

[1]Previous studies have explored how migration pressure shapes the political economy of sovereign debt (Bernhard and Leblang 2016) and foreign aid flows (Bermeo and Leblang 2015).

influence lies the Executive Board (EB).[2] The EB—chaired by the Managing Director of the Fund—consists of 24 executive directors. The G5 countries—the five largest contributors to the IMF (i.e., the US, the UK, France, Germany, and Japan)—appoint their own Executive Directors.[3] Executive directors are expected to be loyal to the IMF, not to their home country. Yet this has proven more of a principle than a hard-and-fast rule since some countries, such as "the United States and the United Kingdom, have not consistently abided by this model" (Momani 2010, p. 165). In fact, the EB seating arrangements provide the G5 countries with substantial power on the Board, which they use to advance their own national interests.

Given the G5 seats on the EB and their unrivaled voting power, many studies of IMF lending have adopted a state-centric approach. These studies emphasize the preferences of the powerful G5 states, particularly the US, in explaining the variation in IMF conditionality. While some argue that countries of political importance, measured by memberships (permanent and non-permanent) of the UN Security Council, receive softer conditionality (Dreher, Sturm, and Vreeland 2015), others highlight US influence via "informal governance" within the Fund (Stone 2008). In addition, powerful domestic interest groups of the G5 states often sway the Fund's lending decisions to protect their economic interests in recipient countries (Breen 2014). In this regard, several high-profile IMF lending cases—such as those involving Russia, Ukraine, Argentina, and Turkey—are cited as instances where US pressure for lax conditionality caused IMF programs to fail eventually (Stone 2008, 617).[4] While other IOs have worked to resolve the tension between national inter-

---

[2]Executive boards of international organizations generally serve four primary roles—performance police, strategic thinker, political counterweight, and democratic forum (Martinez-Diaz 2009, p. 86). The IMF's Executive Board is generally seen as a strategic thinker and a democratic forum while it is less equipped for acting as a performance police (Martinez-Diaz 2009, p. 91).

[3]China, Saudi Arabia, and Russia also have their own seats, while the rest of the seats are elected by separate constituencies formed by the remaining member states.

[4]US pressure was particularly visible in the case of Russia, where the Unites States pushed for a generous lending package for Russia (Gould-Davies and Woods 1999, 10). The program included a Special Drawing Right (SDR) of 6.9 billion under an Extended Fund Facility (EFF) for Russia on March 26, 1996, by the Executive Board, which was at that time the largest EFF in IMF history (IMF 2018a). This was the case even as the IMF staff "did not think that the 1998 loan to Russia made any sense... [y]et the IMF is a hierarchical organization, and the people at the top actually believed that the program would work" (Stiglitz 2003, 130).

ests and international objectives by strengthening the independence and accountability of decision-making bodies, the tension between national policymakers and the Fund's technocrats has persisted (Woods and Lombardi 2005).

We build on this literature of G5 influence within the IMF to argue that the G5 countries use the Fund's resources to meet their objective of reducing immigration. Presumably, G5 policymakers are aware of the relationship between short-term adjustment costs and migration patterns. While the G5 countries also care about the long-term success of an IMF program when the target country is a major migrant-sending state, incumbents in the G5 countries have more political incentives to care about the short-term electoral implications of potential immigration inflows into their countries if the Fund fails to reduce economic distress in the recipient country's economy quickly.[5] In other words, G5 policymakers prioritize the benefits of IMF loans in reducing migration flows in the next few years over those that may materialize in the next several decades.

The crux of our argument proceeds in two sequential steps on which we will elaborate shortly. First, a country in economic trouble (j) approaches the Fund for financial assistance. At this stage, citizens of j have already begun to emigrate. The majority of migrants use existing diaspora networks to decide where to move. If a G5 country i hosts a large number of migrants from j, i experiences a substantial degree of migration pressure even prior to any IMF involvement. Second, as the society of i becomes apprehensive about increasing immigrants from j, the G5 countries gather to discuss a potential loan package for j. The greater number of G5 countries face migration pressure from j, the more generous j's IMF loan package becomes given that increased financial assistance to j reduces migration pressure from j on i. In addition, if i holds a greater share of voting power within the Fund, i's migration concern will shape the design of j's loan package such that the IMF's program

---

[5]Numerous studies examine the roots of anti-immigration attitudes in wealthy, advanced democracies, and the implications for immigration policymaking. For instance, see Freeman (1995); Hainmueller and Hiscox (2007; 2010); Scheve and Slaughter (2001); Zolberg (1989). For the influence of anti-immigrant right-wing populists, see Messina (2002); Swank and Betz (2003). For labor unions, see Haus (2002); Briggs (1984; 2001).

reduces migration pressure.

Decision-making in the IMF starts as early as the phase during which the staff prepare proposals. Before a proposal reaches the EB for approval, informal communications between national authorities, Board representatives, staff, and management take place to set the scope for bargaining and negotiation of proposal details. After reaching the EB, it is unlikely that the proposal will be rewritten (Woods and Lombardi 2005). In this regard, following the informal governance approach, we expect G5 Executive Directors to engage in informal negotiations behind closed doors to shape IMF programs in ways that create incentives for potential migrants to remain in their home country.

G5 Executive Directors can ensure this by: (1) securing a large loan for the borrowing country, which could increase potential migrants' opportunity cost of emigration in the foreseeable future; (2) attaching fewer labor or fiscal conditions to programs, which are typically perceived to exacerbate the short-term adjustment costs of IMF programs; or (3) granting condition waivers to the recipient country during program implementation, thus ensuring that loan disbursements will be released regardless of country performance. These measures can be effective in reducing migration pressure by shaping the future expectations of potential migrants, as well as by their actual economic impacts in the target country.

Labor conditions are known to be one of the most politically contentious types of IMF conditionality.[6] These conditions require implementation of reforms of the borrowing country's domestic labor market, which have direct effects on employment, wages, and social benefits, such as wage freezes and pension reform (Caraway, Rickard, and Anner 2012). The causal mechanism we expect to observe is straightforward: if workers are losing jobs as a result of the implementation of a labor-market policy, they might have to consider migrating to a wealthier country offering more job opportunities. In addition, potential migrants may use labor-market conditions set by the Fund as an indicator of

---

[6]This explains why earlier studies adopted a disaggregated approach to examine the determinants of labor-market conditions in IMF programs (Rickard and Caraway 2014).

their economic prospect in the home country.

Imposing fiscal conditions also affects the daily lives of citizens of the borrowing country. The most common fiscal condition attached to an IMF program is the fiscal deficit target. Depending on which expenses are considered "non-priority" by the IMF, some segments of the society will have to bear the burden of the implementation of this condition disproportionately. However, we expect labor conditions to be more critical than fiscal conditions in our analysis because labor conditions have a more direct bite in shaping the level of potential emigration.

The Fund's conditionality can also shape the target country's behavior toward emigration. In exchange for a better deal from the Fund, the government of the recipient country may take measures to reduce emigration, especially when it is a large migrant-sending state for the G5 countries. The Fund can deploy several types of IMF conditionality that differ in how specific they are, what they include, and their monitoring requirements (Copelovitch 2010b). The measures that a country is required to take before the EB approves a loan or completes a review are called prior actions. On the other hand, structural benchmarks, which are qualitative in nature, are conditions considered significant in achieving program goals and are designed as "markers" to assess the implementation of an IMF program during a review (IMF 2018b).

The Fund also utilizes several indicators to assess whether the program functions as provisioned. Performance criteria are often constructed on the basis of numeric variables, which are called quantitative performance criteria. In case of a failure to comply with any performance criterion, an approval of the IMF Executive Board is needed to maintain the program and be able to access future loan disbursements or tranches'. Structural performance criteria are not numeric indicators; they reflect changes in structural circumstances such as entry of a law into effect, or realization of an administrative operation or decision. It is obligatory to comply with both performance criteria for successful completion of program reviews. As for indicative targets, they are used for monitoring variables that are

critical for fulfillment of a program.

Regardless of the precise criteria, we posit that more favorable IMF programs will be associated with recipient countries where the threat of migration to major IMF shareholder countries is greatest. Importantly, this argument requires determining where the migrants of recipient countries are likely to move. The international migration literature supports that migrants tend to relocate in destination countries where their co-ethnics and family members already reside (Portes and Böröcz 1989; Massey, Arango, Hugo et al. 2005). This is because existing migrant networks provide information about the host country to potential migrants, as well as help migrants integrate into the society and economy of host countries (Boyd 1989; Bailey and Waldinger 1991; Eric and Ooka 2006). With lower transaction costs and greater access to information, the threat of future migration should be highest where there is already a large community of migrants from the IMF recipient country living in the destination country. Accordingly, we offer the following hypotheses with respect to loan size, conditionality, and condition waivers:

H1: The IMF grants larger loans to target countries with larger diasporas in the G5 countries.

H2: The IMF grants less stringent conditions to target countries with larger diasporas in the G5 countries.

H3: The IMF grants more waivers to target countries with larger diasporas in the G5 countries.

Since economic conditions of target countries affect the degree of migration pressure, we also test whether there is more empirical support for these hypotheses when the rate of economic growth is slow or negative. Further discussion of our empirical strategies and the precise operationalization of the hypotheses are provided in the research design section.

Although our approach asserts that the G5 countries wield enormous control over the Fund and its Board, the migration angle of our argument does not necessarily conflict with the public-choice approach of the IMF lending literature in terms of the observable implications. According to this view, "bureaucratic politics," rather than the interests of the major shareholders, are the main political factors shaping the Fund's lending policies (Angin 2016; Copelovitch 2010b). In this regard, the IMF staff constitute a highly independent actor while the Fund staff adopt, interpret, and apply their own norms (Chwieroth 2008, 155) and have intellectual dominance in the design of loan conditionality, writing of surveillance reports, and provision of technical and policy advice (Momani 2007, 23). The IMF, as a bureaucratic entity, may view increased emigration from the target country as a major sign of failure of its program. Since emigration from the target country is often the most sensationalized consequence and the most visible sign of a short-term program failure, the IMF staff maintain shared interests with the G5 countries when the target country poses substantial migration pressure for the major IMF shareholders.

Romania and the IMF: An Illustrative Case

The Fund's migration concerns were especially evident in the case of Romania, one of the largest migrant-sending countries in Eastern Europe and a recipient of one of the IMF's largest Stand-By-Arrangements (SBAs). The Romanian economy suffered tremendous economic losses during its phase of democratization, accompanied by institutional restructuring and neoliberal policies. With more than 3.5 million jobs lost and 44-percent a decline in the employed population (Focus Migration 2017), Romanian citizens turned to labor migration as an economic escape. As of 2017, the number of Romanian migrants working abroad, particularly in France, Germany, Italy, and other Western democracies reached 3.4 million, only 1.2 million of which were legal immigrants (Focus Migration 2017).

Romanian immigration triggered political and economic agitation in their host states at both national and regional levels (Culic 2008; Mai 2010). As Romanian immigrants became

associated with irregular unskilled laborers (Diminescu 2004), undesired inflows of the historically marginalized Romani (Aradau 2009), and international trafficking of women and children (Aradau 2008; Mai 2010), wealthy Western states struggled to curb Romanian immigration inflows by imposing temporary measures to keep Romanians from entering their labor markets (Focus Migration 2017).

These wealthy democracies took measures to keep Romanian immigration at bay while the IMF was actively extending financial assistance to Romania. Facing domestic and external imbalances as well as asset bubbles and structural fiscal deficits, Romania's short-lived economic boom ended prior to the Great Recession of 2008. To address the severity of its problems, Romania turned to the Fund to request an SBA to restore market confidence and achieve fiscal sustainability. The Fund approved the SBA in May 2009, with an exceptionally large disbursement of 11.443 billion SDR[7]—equivalent to 1,110.8 percent of Romania's quota. The loan package was considered "one of the largest in [the] Fund's history" at the time, with co-financing from the EU, the World Bank, and the European Bank for Reconstruction and Development (IMF 2012).

While the group of international lenders, led by the IMF, granted Romania a large loan of 20 billion euros (27 billion US dollars), the country's application for accession into the EU border-free Schengen area came to a stop. Rooted in economic and migration concerns, Romania perceived the Schengen rejection as self-serving of the interests of France and its recruited ally, Germany—not coincidentally, two of the European countries with the largest Romanian diasporas. In its analysis of the decision's outcome, *Romania Libera*, a leading Romanian newspaper, pointed in no ambiguous terms to the border interests of France and its allies as the hidden, causal factors driving Romania's Schengen rejection (Serbanescu March 2, 2011):[8]

---

[7]SDR (Special Drawing Right) was created by the IMF in 1969 as a supplementary international reserve asset, and it still serves as the unit of account of the Fund together with other IOs such as the World Bank.

[8]This article, published on March 2, 2011, notes the hidden link between Romania's delayed entry into the Schengen area, and France's interests.
Retrieved from `http://infoweb.newsbank.com/resources/doc/nb/news/135CE3FF2E4AEBF0?p=AWNB`

Romania's expected but failed accession to the Schengen space was a remarkable one, and it was not typical of the banalities and demagogy so usual in the European Union. Only few things were told, but even omissions were meaningful, although the real reasons were hidden under the carpet. The champion of partially told truths and omissions was Mr Sarkozy's France. France, which has been referred to as Romania's "elder sister" for decades, taught a lesson to its younger sister. France accused Romania of not being ready to be responsible for the commercial security of EU's eastern border, which is true from the point of view of West European countries.

In addition, the issue of Moldovans in Romania was a source of contention between France and Romania. France was particularly concerned about Moldovans who acquired Romanian citizenship, and their potential immigration into France. Given the widespread societal perception that immigrants from the southeast of the European Union were more likely to commit crimes, France found the Romanian government's citizenship policy toward Moldovans to be a threat to the commercial security of the EU's eastern border.

France's apprehension about Moldovan-Romanians, however, was likely motivated by political pressure from the French electorate, not by reliable statistics or objective studies (Serbanescu March 2, 2011).

Yet, France omitted to say that the citizens of the Republic of Moldova who had wanted to leave their country and to look for jobs in the European Union had already done that, and were already in Paris, Rome, or Berlin. When it talks about the fact that three-quarters of the immigrants who commit crimes in the Schengen space come from the southeast of the European Union, France omits to say that the problem is not directly related to Romania, because Romania has not been responsible for protecting the Schengen space border from illegal immigrants till now.

Furthermore, the French policy toward the Romani reflects the French electorate's pervasive concerns over immigration. In August 2010, the French government cleared

300—nearly half of the country's total—of what they argued to be unauthorized camps built by the Romani on council-owned land in Saint-Etienne. Recent Romani immigrants from Romania and Bulgaria used the camps as makeshift homes. France justified the closing of the camps on grounds of "illegal trafficking, of profoundly shocking living standards, of exploitation of children for begging, of prostitution and crime" (France Starts Removing Roma Camps August 2, 2010). Human rights groups, however, considered it a calculated measure to win the support of right-wing voters, particularly given President Sarkozy's declining poll ratings (France Starts Removing Roma Camps August 2, 2010).

Domestic and international groups raised further concerns when the French government pushed forward with efforts to repatriate Romani immigrants by paying an amount of 300 euros and an additional 100 euros per child to every Romani immigrant who agreed to return to Romania. The measures triggered fierce criticisms by members of the United Nations (UN) Committee on the Elimination of Racial Discrimination who argued that racism and xenophobia were undergoing a "significant resurgence" in France (France Sends Roma Gypsies Back to Romania August 20, 2010). The French efforts in the Romani repatriation were only met with reluctant compliance by the Romanian president Traian Basescu, who argued that while Romania believed in the "right of every Romanian citizen to travel without restrictions within the EU," the Romanian government was prepared to assist France in implementing the repatriation scheme by sending their police troops to France (France Sends Roma Gypsies Back to Romania August 20, 2010). France's repatriation of 10,000 Romani people in year 2009 alone encouraged Germany, Italy, Denmark, and Sweden to follow suit.

The French-Romanian case demonstrates the intricate link between money and migration. Though the Fund's G5 countries were willing to open their financial doors to ameliorate Romania's financial difficulties, the same countries—particularly the ones in Europe—were closing their borders and labor markets to Romanian citizens seeking economic opportunities abroad. The concurrence of the Fund's generous loan package and

Romania's delayed entry into the Schengen area illustrates the G5's attempt to resolve the Romanian crisis outside their borders. When migration pressures are present, the IMF's major shareholders can use their influence at the Fund to ease the adjustment of IMF programs and, in turn, curb immigration inflows into their own countries. To assess the connection between migration pressures and IMF lending more universally, the next section details the data and empirical strategy used to test each of our hypotheses.

Research Design

To test whether concerns about migration create more favorable IMF programs, we utilize new data on IMF conditionality from Kentikelenis, Stubbs, and King (2016). The data are sourced from internal IMF documents—including IMF staff reports, the Letters of Intent (LoI) of national governments, and Memoranda of Economic and Financial Policies (MEFPs)—that collectively contain detailed information on IMF program approvals, conditionality, and policy implementation.[9] This allows us to analyze the Fund's behavior at different phases of an IMF program. Specifically, we assess the favorability of IMF lending along three different metrics: (1) loan size; (2) types of policy conditions imposed; and (3) number of condition waivers granted by the IMF.

While data from Kentikelenis, Stubbs, and King (2016) contains observations for each individual policy condition across all IMF recipient countries, we modify their dataset by treating IMF program as our unit of analysis. To do this, data on individual conditions are synthesized into a single observation for each IMF program. In some cases, a recipient country enters simultaneously into two different lending arrangements that must be separately approved by the Fund's EB. This typically includes situations where IMF beneficiaries enter into two different lending facilities (e.g., SBAs, EFFs, etc.), which are subject to different terms of access and repayment. We treat such co-existing arrangements

---

[9]As Kentikelenis, Stubbs, and King 2016 (pp. 39-40) describe, the issue area of IMF conditions (e.g., labor conditions, fiscal conditions, etc.) are manually coded by two researchers and then cross-referenced.

as under the same umbrella program since they are approved concomitantly. However, multiple IMF loan arrangements for the same country and within the same year are treated as separate observations, so long as such arrangements are approved by the EB at different dates. Our sample covers a total of 663 IMF programs and 114 different recipient states, spanning from 1978 to 2013.[10]

Dependent Variables

The empirical analysis focuses on three outcomes of interest. Our first dependent variable is the size of the total loan disbursement (in millions SDR) divided by the total population of the recipient country. Normalizing loan size by population accounts for the fact that larger countries naturally require greater injections of capital in order for IMF programs to be effective. We also take the natural log of this value to account for the diminishing marginal effects of IMF finance. For programs with multiple loan arrangements, we simply sum together the size of the individual loans. It is important to note that loan amounts are agreed *ex ante* between the Fund's EB and the recipient country at the onset of a program. Thus, our measure avoids detecting the effects of loan disbursement size on levels of emigration out of the recipient country, which could bias the main estimates.

Scholars have used loan per quota to account for the country's influence or "entitlement" within the Fund (Stone 2008; Copelovitch 2010b). However, we focus primarily on loan size *per capita* since we want to measure the loan amount that would reduce short-term migration pressure, regardless of the degree of "entitlement." We agree that loan *per quota* is a more appropriate measure of loan size for studies linking IMF lending to other geopolitical issues, especially when scholars want to investigate loan size in reference to multiple economic indicators of a borrowing country. The IMF quota formula is a weighted average of GDP (weight of 50 percent), openness (30 percent), economic variability (15 percent), and international reserves (5 percent). Since migration is a population dynamic,

---

[10]Complete summary statistics are provided in Table A1 of the Appendix.

we replace this quota formula with a borrowing country's entire population. Nevertheless, we later use loan per quota as an alternative measure of loan size. We provide the results and further discussion in Robustness Checks.

We next analyze whether migration pressures affect the types of policy reforms imposed by the Fund. Policy conditions are explicitly defined in a recipient country's MEFP, which is attached to that country's Letter of Intent at the onset of an IMF program. IMF conditionality can encompass a broad array of policy reforms, meaning we have the option to analyze how migrant pressures affect the stringency of IMF conditionality across a range of issue areas. Our analysis examines labor and fiscal conditions. The short-term costs of such measures are likely to increase emigration out of the country, thus making policymakers more reluctant to impose these conditions in the first place. To test this argument, the two dependent variables we use constitute labor or fiscal conditions attached to a country's IMF program.[11] Some actual examples include to "develop a satisfactory action plan for reforming the pension regimes for the police and the military" (Peru 2004), and to "adopt legislation to reduce the minimum wage for long-term unemployed" (Greece 2012). These data are directly sourced and coded by Kentikelenis et al. (2016) from the MEFPs of recipient countries. For these models, we also control for the total number of all IMF policy conditions to ensure our results are not driven by program size.

Lastly, we look at whether recipient countries posing a threat to future migration are given more condition waivers during program implementation. Condition waivers are granted by the Fund's EB in the event that a "hard" condition of an IMF program—such as a prior action, quantitative performance criterion, or structural performance criterion—is not fully met. Condition waivers can be crucial for recipient countries, as future loan disbursements, or "tranches," cannot be disbursed following unmet conditions unless those conditions are formally waived. Though the purpose of condition waivers is

---

[11]Examples of labor conditions include enacting limits on wages and employment, reforming pension systems, or modifying social security institutions. Other types of reforms that are tangential to labor—for instance, payment of wage arrears (fiscal policy), social safety nets (redistribution policy), and income taxes—are coded as different issue areas.

ostensibly to maintain policy flexibility, waivers may also be granted as political favors to recipient countries (Pop-Eleches 2009). Our third dependent variable is therefore the total count of program waivers granted for an IMF program. In contrast to loan size or *ex ante* conditionality, attention to condition waivers allows us to observe IMF behavior during the implementation of policy reforms. This is important since the Fund may still favor certain loan recipients over others via policy *flexibility*, even if the initially prescribed policy reforms are relatively harsh. While nearly half of IMF programs include no condition waivers, other recipient countries have a majority of their conditions waived at least once during program implementation. In extreme cases, countries obtain more condition waivers than the total number of policy conditions.[12]

Independent Variables

Our theory posits that more favorable IMF programs will be associated with recipient countries whose migration pressures on major IMF shareholder countries is greatest. Past research supports that migrants tend to relocate in destination countries where their co-ethnics and family members already reside, since existing diasporas can lower the transactions costs of migration and provide potential migrants greater access to information (Boyd 1989; Portes and Böröcz 1989; Bailey and Waldinger 1991; Massey, Arango, Hugo et al. 2005; Eric and Ooka 2006). For this reason, our main independent variable is the existing stock of migrants from the recipient country living in the IMF's five largest shareholder countries. In terms of IMF vote shares, these countries include the US, the UK, France, Germany, and Japan.

In line with the existing migration literature (Fitzgerald, Leblang, and Teets 2014), we believe the stock variable is the single most important determinant of migration pressure, especially from the perspective of G5 policymakers. While migrant stock profiles vary

---

[12]Countries may have a single condition waived more than once. Therefore, this makes it possible for countries to obtain more condition waivers than the total number of conditions.

substantially across major migrant-receiving countries, they show relatively stable trends over time within each country. For instance, once a sizable migrant network is established, its growth follows an upward trend over time. While a migrant-receiving country's immigration policy and economic conditions certainly affect the growth rate of a migrant network, it is inherently self-perpetuating at least in the short or medium run.[13] This unusually path-dependent nature of migrant networks ameliorates some concerns about omitted variable bias as well as endogeneity between IMF lending, migrant stocks, and migrant flows.

Migrant stock data come from the UN Global Migration Database. Because these data are available at only 10-year intervals, we interpolate values for migrant stocks using the average annual rate of change occurring over each ten-year period. Although we are well-aware of the pitfalls of this data source in terms of actual precision, we argue that this lack of precision does not pose serious problems in testing our hypotheses. To see why, we emphasize that the numbers in the dataset are actually computed based on the national statistics of the G5 countries. Since G5 policymakers rely on the same data source in policymaking, this is the most appropriate migration dataset to operationalize the decision calculus of G5 policymakers. In other words, G5 policymakers are unlikely to have access to precise data on migrant stocks within their own countries. Instead, it is more likely that they rely on the same source used in our empirical analysis.

To measure the G5 countries' migration concerns in IMF lending, we take two approaches. The first approach considers the collective influence of the G5 countries using a composite measure of migrant stocks from the recipient country. This measure is constructed in two steps. First, a country's stock of migrants from recipient country j is

---

[13]The growth of migration can be expected to eventually level off over time. For instance, Mexican migration to the US has slowed over the past decade, despite a large Mexican diaspora present in the US. We find this less of a problem, however, given the time period of our sample. From the 1970s and then into the post Cold War period, migration flows have been largely predictable and increasing, even following the global financial crisis (OECD 2013). The "self-perpetuating" assumption might become more of a problem in the future given government push-back against open borders and the natural decline of older migration flows as emerging economies continue to develop.

weighted by the destination country's vote share in the IMF. For instance, the stock of j migrants living in the US as of 2017 is weighted by 16.53 percent, while the stock of j migrants living in the UK is weighted by 4.04 percent. After doing this for each G5 country, the weighted stocks are then added together. The composite measure, *G5 Migrants*, is formally:

$$G5\ Migrants = \sum_i Stock_{j,i} \times Vote\ Share_i$$

where i denotes the G5 country and $Stock_{j,i}$ denotes the stock of migrants from the recipient country living in country i. This measure therefore places greater weight on the threat of migration to the United States—the IMF's largest shareholder—than the threat of migration to shareholders with smaller voting shares.

Our second approach instead considers the threat of migration to the G5 countries individually. For these models, we simply disaggregate migrant stocks into five separate and unweighted independent variables (i.e. one for each G5 country). This allows us to explore whether the threat of migration to certain G5 countries affects IMF lending more than the threat of migration to other G5 countries. Moreover, different G5 countries may ease the burden on IMF recipient countries through different means (e.g., increasing the loan size, reducing conditions, granting condition waivers). For both the composite measure and country-level measures of migrant stock, we normalize migrant stocks by the population of recipient country j. This ensures our results are driven by migration pressures rather than the size of the recipient country.

The conditional hypothesis posits that the threat of migration should be more pronounced where the growth prospects of the recipient country are particularly poor. This is because low economic growth can act as an additional "push factor" that encourages individuals to seek work and better economic conditions abroad. Under such circumstances, the G5 countries are likely to be especially averse to tightening the strings on IMF programs. Conversely, the G5 countries may perceive a lower threat of migration for recipient countries with greater underlying prospects for economic growth since the

incentives to migrate will be greatly diminished. To test this dynamic, we interact the migrant stock variables with the real annual GDP growth rate of the recipient country. GDP growth data are calculated using the Penn World Tables.

Though other numerous characteristics of migrant-sending states affect migration pressure (e.g., natural disasters, wars, etc.), we do not incorporate these sending-state factors in constructing a proxy for migration pressure for a number of reasons. First, given that the sample of countries consists entirely of countries in economic trouble, all countries in our sample exert at least some level of *emigration* pressure. What matters more for our analysis is the characteristics of the migrant-receiving countries—the G5—that modify migration pressure on their economies. In other words, we make a simple assumption that G5 policymakers infer about future immigration flows from *j* by measuring existing migrant stocks from *j* in their countries. Second, a complex computation of a migration-pressure variable assumes unreasonable complexity in how G5 policymakers make decisions. Instead of assuming that G5 policymakers look at a plethora of social adversities in *j*, we hypothesize that they look at the recent rate of economic growth in *j* as the primary sending-state indicator of migration pressure.

Controls

Our models control for factors plausibly associated with both international migration flows and IMF lending behavior. Previous research supports that allies of major IMF shareholders are likely to receive bigger IMF loans and less onerous conditionality than non-allies. Countries may ally for a variety reasons—such as sharing similar cultural attributes, geographic proximity, or common interests—that may also be correlated with international migration flows. For instance, migrants are likely to move to destination countries with the same language or a similar culture. In addition, allied states with more cordial relations could be more willing to permit free movement of individuals between them than otherwise. We therefore control for common security interests by including a

dummy variable for whether the recipient country is a formal ally with any G5 country. These data come from the Correlates of War (COW) Formal Alliance dataset.

The commercial relationship between G5 members and IMF recipients is also important. Countries vital to G5 economic interests, such as those that constitute large export markets, are likely to receive more favorable treatment since the negative effects of austere policy conditions can reverberate to foreign countries when economic interdependence is high. At the same time, migration flows may rise between countries that are economically connected, as result of the freer flow of information and growing familiarity between the host and home country. We account for shared commercial interests by controlling for the recipient country's total imports (logged) and total exports (logged) vis-à-vis the G5 countries.[14]

To account for the political institutions of the recipient country, we control for level of democracy using the recipient country's Polity score. Democratic recipient countries are likely to receive more favorable loan packages, whether due to their similar political institutions with G5 countries or due to the fears of G5 policymakers over democratic backsliding.[15]

Our last set of controls are standard macroeconomic measures of the IMF recipient country. These include (log) GDP and (log) GDP per capita. Annual GDP growth is also included as a control for testing the unconditional relationship between migration pressures and IMF lending behavior. This ensures that our independent variables are not instead picking up growth and development characteristics of the recipient country that are likely to drive both migration and IMF lending decisions. Data for GDP and GDP per capita are obtained from the Penn World Tables. We also supplement some missing data on GDP per capita using World Bank data.

---

[14]These data also come from the Correlates of War International Trade dataset.

[15]Caraway et al. show that democracies secure softer loan conditions than nondemocracies, *ceteris paribus* (Caraway, Rickard, and Anner 2012).

Statistical Models

Because the logged measure of IMF loan size is continuous and normally distributed, while conditions and waivers are count variables, we test each of our hypotheses using different econometric methods. For the analysis of IMF loan size, we first estimate the following ordinary least squares (OLS) model with standard errors clustered on country:

$$ln(Loan\ Size\ per\ Capita) = \beta_0 + \beta_1 G5\ Migrants_j + \gamma \mathbf{X_j} + \delta_t + \varepsilon$$

where $G5\ Migrants_j$ is the existing stock of migrants living in the G5 countries (weighted by G5 country vote share and then normalized by the recipient country's population), $\mathbf{X_j}$ is a vector of controls, and δ_t denotes year fixed effects. For models testing the importance of migration pressures to individual G5 countries, we simply disaggregate $G5\ Migrants$ into five separate independent variables. Year fixed effects control for time-trends and omitted system-level variables—such as commodity price shocks or global economic crises—that are likely to bias our estimates. We do not, however, include country fixed effects for borrowing countries since many have a single-year observation. While some IMF programs span several years, the migration stock variable is generally time-dependent within each borrowing country. Not only do migrant stocks tend to grow over time, but also our data construction method uses linear interpolation. Even if we abandon linear interpolation in favor of carrying forward ten-year intervals' known values to unobserved years in between, we would not get much within-country variation in the migration variable given that our panel is relatively short. In the end, we exploit cross-national differences in migrant networks to explain why some countries receive better packages from the Fund, not why the Fund treats a particular borrowing country differently at various times.

Our unconditional hypothesis predicts β_1 to be positive—that is, where the threat of migration to the G5 countries is greatest, recipient countries will be granted larger IMF loans. To test the conditional effect of G5 migrant stocks, we instead estimate an OLS model

that interacts *G5 Migrants* with annual GDP growth. Here, we expect the constituent term for *G5 Migrants* to be positive, but the interaction term to be negative. This would signify that the threat of migration is perceived as less of a concern by G5 policymakers when the growth prospects of IMF program recipients are relatively good.

Because conditions and condition waivers are count variables, estimating an OLS model would yield biased and inefficient estimates. In addition, both dependent variables have variances nearly twice the size of their mean, which indicates overdispersion in the data. Goodness-of-fit tests of Poisson models also suggest that the Poisson distribution is a poor modeling choice.[16] We therefore use a negative binomial model for estimating both labor policy conditions and condition waivers:

$$ p(y_i) = \frac{\Gamma(1/\alpha + y_i)}{\Gamma(1/\alpha)\Gamma(y_i + 1)} \left(\frac{1}{1 + \alpha e^{x_i - \beta}} \right)^{1/\alpha} \left(\frac{\alpha e^{x_i - \beta}}{1 + \alpha e^{x_i - \beta}} \right)^{y_i}, i = 1, 2, ..., n. $$

where y_i = number of labor-market conditions or waivers granted; $\alpha > 0$ is the heterogeneity parameter; predictor variables $x_1, x_2, ..., x_p$ are given; and regression coefficients $\beta_0, \beta_1, \beta_2, ..., \beta_p$ are to be estimated. Standard errors are again clustered on country. The control variables of these models is identical to our model of loan size. For labor and fiscal policy conditions, we predict the coefficient on *G5 Migrants* to be negative. For condition waivers, we predict the coefficient on *G5 Migrants* to be positive.

Empirical Findings

Migration Pressures and the Size of IMF Loans

We first present the statistical results for IMF loan size. Table 1 provides estimates for the relationship between our *G5 Migrants* composite measure and per capita loan size (logged). Model 1 controls only for alliance membership, trade with the G5 countries, and

---

[16]For all Poisson models, Prob $> \chi^2 = 0.000$. The dispersion parameter for all negative binomial models is also statistically distinguishable from zero, which further confirms a Poisson model would be inappropriate.

democracy. Models 2 through 4 each incorporate different macroeconomic measures to assess whether the results are affected by the recipient country's growth or development characteristics. These measures are included separately from one another since they are highly collinear. Model 5 tests the conditional relationship between migration pressures and IMF loan size by interacting *G5 Migrants* with the recipient country's GDP growth. All models include year fixed effects.

Table 1: G5 Migration and IMF Loan Size

	(1)	(2)	(3)	(4)	(5)
G5 Migrants $_{j,i}$ (per capita$_j$)	35.637*	33.175*	12.847	28.408$^+$	33.942*
	(14.149)	(16.303)	(14.156)	(14.901)	(14.481)
G5 Alliances	0.175	-0.005	0.191	0.219	0.235
	(0.230)	(0.149)	(0.214)	(0.228)	(0.228)
Polity	0.028*	0.007	0.032**	0.028*	0.028*
	(0.012)	(0.008)	(0.010)	(0.011)	(0.011)
Total Imports from G5 (log)	0.021	-0.143*	0.229*	0.031	0.033
	(0.089)	(0.061)	(0.095)	(0.092)	(0.092)
Total Exports to G5 (log)	0.147*	0.079	0.205**	0.135$^+$	0.135$^+$
	(0.070)	(0.053)	(0.074)	(0.073)	(0.074)
GDP per Capita (log)		0.727***			
		(0.091)			
GDP (log)			-0.293***		
			(0.077)		
GDP Growth				-2.560***	-1.749*
				(0.742)	(0.846)
G5 Migrants $\times$ GDP Growth					-375.945*
					(148.820)
Year Fixed Effects	✓	✓	✓	✓	✓
Observations	663	658	648	647	647

Note: These estimates are from ordinary least squares (OLS) regression. The dependent variable is the (logged) size of the loan for a given IMF program. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of 0.1, 1, 5, and 10 percent, respectively.

In Model 1, *G5 Migrants* is statistically significant ($p < 0.05$) and in the predicted positive direction. When the G5 countries host a relatively large stock of migrants from the IMF recipient country, the IMF tends to grant larger loans. The size of this effect is quite large. A 1 standard-deviation (SD) increase in *G5 Migrants* is associated with a roughly 27 percent increase in the per capita size of the IMF loan. This finding also holds when controlling for the growth and development characteristics of the recipient country. *G5 Migrants* remains positive and statistically significant in Models 2 and 4 (at the 0.05

and 0.10 level, respectively). The coefficient shrinks slightly in these models, as economic growth and development in the recipient country are likely to be tied to both migration patterns and the need for IMF finance. Nevertheless, a 1 SD increase in *G5 Migrants* is still associated with a 21 to 25 percent increase in loan size per capita. This lends further support to Hypothesis 1 and confirms that the relationship between migration pressures and loan size is not simply an artifact of the size or poverty level of recipient countries. *G5 Migrants* remains positive, but loses statistical significance in Model 3.

Model 5 shows support for our conditional hypothesis. The interaction term of our G5 migrant stock measure and GDP growth is statistically significant at the 0.05 level and in the predicted negative direction. This suggests that G5 policymakers become less concerned about the threat of migration when the recipient country's economy is growing. The nature of this relationship also makes intuitive sense. Note first that the constituent term for the G5 migrant stock measure is statistically significant at the 0.05 level and reflects the relationship between *G5 Migrants* and IMF loan size under conditions of zero growth in the recipient country. Thus, for IMF recipients at zero growth rates, a 1 SD change in *G5 Migrants* is associated with a 25 percent increase in the per capita loan size. Figure 1 illustrates the marginal effect of *G5 Migrants* across different levels of GDP growth. As shown, lethargic growth rates in the recipient country tend to exacerbate policymakers' concerns with migration. Interestingly, too, the marginal effect of *G5 Migrants* becomes statistically indistinguishable from zero when recipient countries experience some positive level of economic growth. Migration pressures therefore appear to be a concern only when the preexisting economic conditions within recipient countries are particularly dire.

Table 2 next provides results when disaggregating the migrant stocks of the G5 countries into five separate (and unweighted) variables. This allows us to see whether migration pressures are more salient for some G5 destination countries than others. The specification of these models mirrors those of Models 1 through 4. From Table 2, there is a clear relationship between loan size and migration pressures on the European G5 members. In all four

Figure 1: Marginal Effect of G5 Migrant Stocks (Model 5)
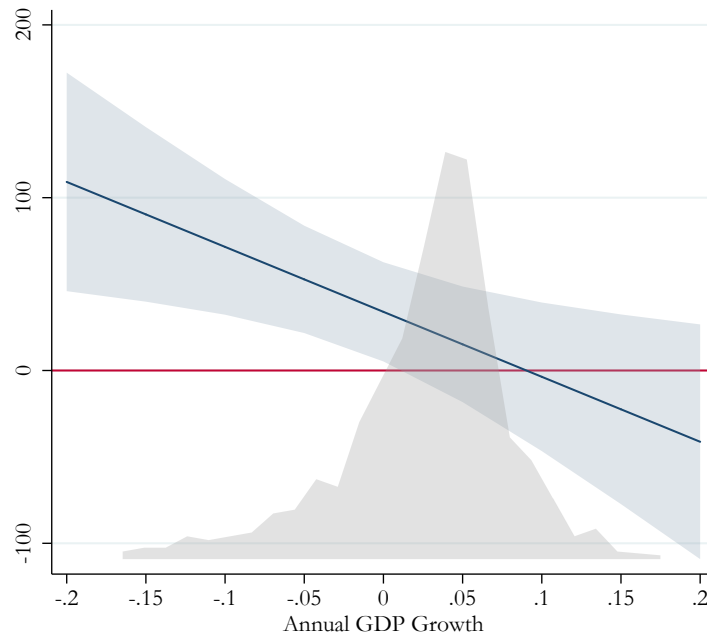
Note: The blue area denotes 95% confidence intervals.

models, the migrant stock measure for the UK is statistically significant and in the predicted positive direction. Depending on the model, a 1 SD increase in *UK Migrant Stock$_j$* elicits a 25 to 32 percent increase in loan size per capita. With the exception of Model 7, which includes GDP per capita, the stocks of migrants living in Germany and France are also statistically significant and positive. For Germany, a 1 SD increase in the migrant stock measure is associated with as much as a 19 percent increase in per capita loan size, whereas for France, this number is closer to 11 percent.

In contrast, the stock of migrants from recipient countries seems to not matter for the United States and Japan. It appears then that the connection between migration pressures and IMF loan size is primarily driven by the major European shareholder countries. This is not too surprising; Europe is in close geographic proximity to major migrant-sending states in Africa, Eastern Europe, and the Middle East. About 66 percent of IMF programs in our sample are directed at countries in Africa, Europe, and the Middle East. France and the UK are also former colonial powers that have consequently served as common destinations of

Table 2: Migration to Individual G5 Countries and IMF Loan Size

	(6)	(7)	(8)	(9)
US Migrant Stock$_j$ (per capita$_j$)	0.038	1.779	-4.441*	-1.752
	(2.676)	(3.066)	(2.207)	(2.469)
UK Migrant Stock$_j$ (per capita$_j$)	30.817**	24.398*	29.277**	30.450**
	(11.541)	(9.693)	(8.861)	(9.771)
Japan Migrant Stock$_j$ (per capita$_j$)	-12.896	0.774	-29.093$^+$	-6.127
	(17.381)	(12.543)	(16.083)	(17.649)
Germany Migrant Stock$_j$ (per capita$_j$)	15.701*	-4.866	16.660**	14.777*
	(6.772)	(5.272)	(5.605)	(6.503)
France Migrant Stock$_j$ (per capita$_j$)	15.121**	6.721	9.587$^+$	14.685**
	(5.592)	(5.839)	(5.705)	(5.206)
G5 Alliance	0.455$^+$	0.054	0.482*	0.496*
	(0.243)	(0.165)	(0.218)	(0.238)
Polity	0.015	0.004	0.017	0.015
	(0.012)	(0.008)	(0.011)	(0.012)
Total Imports from G5 (log)	0.002	-0.129*	0.216*	0.020
	(0.086)	(0.061)	(0.090)	(0.088)
Total Exports to G5 (log)	0.135*	0.066	0.189**	0.120$^+$
	(0.065)	(0.052)	(0.069)	(0.069)
GDP per Capita (log)		0.740***		
		(0.098)		
GDP (log)			-0.289***	
			(0.075)	
GDP Growth				-2.465***
				(0.721)
Year Fixed Effects	✓	✓	✓	✓
Observations	663	658	648	647

Note: These estimates are from ordinary least squares (OLS) regression. The dependent variable is the (logged) size of the loan for a given IMF program. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.

migrants from former colonies. For these reasons, it is likely that the relationship between IMF loan size and future migration is a greater consideration among policymakers in Europe. This is not to say that the US—the Fund's largest shareholder—is unable to exert any influence, but only that US power in the IMF is used to serve other foreign policy concerns, at least when it comes to loan size.

Table A2 in the Appendix provides the results of the conditional effect of migration pressures.[17] Model A1 first tests the conditional relationship between *UK Migrant Stock$_j$* and IMF loan size. Consistent with our hypothesis, the coefficient on the interaction term is negative and statistically significant at the 0.10 level. As seen in Figure A1, concerns

---

[17]Interactions with US and Japan migrant stock measures are not shown. These are statistically insignificant.

about migration appear to only matter at low or negative rates of economic growth in the recipient country. This lends further support to the argument that G5 policymakers perceive migration as less of a threat when the growth prospects of recipient countries are relatively good. The interaction terms, however, are statistically insignificant for Germany and France in Models A2 and A3, respectively.

Robustness Checks

To further assess the robustness of our results, we next consider alternative mechanisms that may explain the positive relationship between migration pressures and IMF loan size. One concern is how the colonial history between the G5 countries and the borrowing country may shape both IMF lending decisions and migrant networks in the G5 countries. Within migrant-sending countries, individuals are likely to have greater knowledge of the laws, economy, and culture of their former colonial powers (Fitzgerald, Leblang, and Teets 2014, p. 418). This type of information is often critical for potential migrants when seeking employment opportunities and new places of residence. Indeed, our results suggest that it is primarily the UK and France, the two major former colonial powers, that drive the relationship between migration pressures and loan size. If major IMF shareholders treat their former colonies more favorably than other loan recipients (e.g., Stone 2004), this could bias our estimates upwards. In addition, former colonies may attract greater amounts of foreign direct investment (FDI) which could also factor into the calculus of policymakers.[18]

Table 3 presents correlations between each major shareholder's migrant stock and whether the migrant-sending country is a former colony of the specific IMF shareholder (indicated in the left column).[19] As shown, major IMF shareholders host a greater number

---

[18]While we recognize FDI flows as a potential confounder, limited data on bilateral FDI flows prohibits us from exploring this quantitatively. Including FDI inflows causes roughly a third of our statistical sample to drop.

[19]Note that these correlations are calculated for the sample within our dataset.

of migrants from their former colonies than non-colonies. Still, with the exception of Japan, these coefficients are smaller than expected. Moreover, the G5 colony dummy is negatively related to the size of G5 migrant stocks as a whole. This is more consistent with conditional relationships found between colonial history and international migration patterns (e.g., Neumayer 2005; Riley and Emigh 2002).

Table 3: Relationship between Former Colonial Relationships and Migration

	Correlation with Migrant Stock
FRA Colony	0.2087
GER Colony	0.2073
JPN Colony	0.9347
UK Colony	0.4186
US Colony	0.1371
G5 Colony	-0.1450

Nevertheless, we control for colonial relationships in Model (A4) and (A5). Table A3 in the Appendix provides the complete estimates for these models. Model (A4) first estimates the effect of G5 migration pressures conditional on GDP growth rates. When including a dummy for whether a loan recipient is a former colony of a G5 country, the interactive term is again negative and statistically significant at conventional levels. Substantively, the results are similar to previous models. As shown in Figure A2 in the Appendix, greater migrant stocks in the G5 countries are associated with larger IMF loans only when GDP growth is at or below zero. This is further evidence that migration pressures are a particularly relevant concern for G5 policymakers when economic conditions in the borrowing country deteriorate.

Model (A5) instead looks at individual migrant stocks and includes separate former colony dummies for each G5 country. *UK Migrant Stock* and *France Migrant Stock* are positive and the only migrant stock measures that reach statistical significance ($p < 0.01$ and $p < 0.10$, respectively). Thus, the association between IMF loan size and migration pressures for the major former colonial powers remains robust. For policymakers in these countries, concerns about migration exist independently of the networks and diplomatic

relations established with their post-colonial states.

We next look at whether accounting for remittance inflows into IMF recipient countries affects the main findings. Remittance flows are naturally associated with larger migrant populations and can also serve as an additional insurance mechanism for the IMF. This means the IMF may be more willing to lend to countries that have greater access to remittances inflows, which are typically countercyclical in nature. Model (A6) of Table A3 tests for the effect of migration pressures conditional on GDP growth once controlling for remittance inflows (log). The interactive term is negative and statistically significant at the 0.05 level, which is again consistent with the main findings. The Remittances coefficient is negative, suggesting that remittances may instead act as a substitute for large IMF programs.

It is worth noting too that remittances partially capture the wealth and political influence of migrants in the G5 countries. Remittances therefore control for an alternative mechanism involving migrant lobbying, where existing diasporas lobby host governments to offer more favorable policies to their home states (Bermeo and Leblang 2015). We do not find this alternative argument convincing in the IMF context since it is unlikely migrants possess the resources and political access to influence policymakers' decisions within an IO as large as the Fund. Occasionally, migrants may actually *oppose* accommodative policies toward their native states, such as in the case of Cuban Americans' attitudes toward sanctions against the Castro regime (Shain 1994; Vanderbush 2009). Moreover, our migration stock variable is measured as a share of migrant-sending state *j*'s population, characterizing which sending state is more of an *emigration* state in relation to the G5 countries. For the lobbying mechanism to hold, we need to operationalize the migration variable as a share of *i*'s population. We do not get strong results when the migration variable is simply logged or is constructed as a share of a G5 country's population.

Lastly, we test whether our initial findings are sensitive to our scaling of the dependent variable. Rather than scale loan size in terms of the recipient country's population, we

instead divide loan size by the recipient country's quota size (logged). This is a common method in the literature since IMF quotas are roughly proportional to the size of a country's economy and trade volume (Stone 2002, p. 57). Loan Size per Capita (log) and Loan Size per Quota (log) are highly correlated ($r = 0.76$), though there is some difference since quotas are not perfectly representative of country's population size. Model (A7) in Table A3 tests for the effect of migration pressures conditional on GDP growth using the baseline of controls as well as a G5 colony dummy. Here, the interactive term is negative and statistically significant at the 0.01 level. Larger migrant stocks are again associated with more sizable IMF loans, but only at negative rates of economic growth.

Migration Pressures and IMF Conditionality

Do migration pressures also affect the types of conditionality imposed by the Fund? We first address this question by analyzing the number of labor policy conditions for a given program. Models 10 and 11 in Table 4 present the main results for the relationship between migration and labor conditionality. Additional robustness checks are also provided in Table A4 in the Appendix. Consistent with our main argument, *G5 Migrants* is negative and statistically significant at the 0.10 level in Model 10. Recipient countries are less likely to have labor policy reforms imposed on them when they have a large stock of their citizens already living in the G5 countries. In such cases, G5 policymakers are likely to fear that labor policy reforms—such as lowering the minimum wage and establishing limits on public employment—will lead to increased migration into their country.

Model 11 next estimates the number of labor conditions using migrant stocks for each individual G5 country. In contrast to our findings on loan size, the results suggest that migration pressures on the IMF's largest shareholder, the US, matter most in determining labor policy conditionality. The coefficient on *US Migrant Stock$_j$* is negative and statistically significant at the 0.05 level. The size of the coefficient increases further and is statistically significant at the 0.05 level once controlling for economic characteristics of

Table 4: G5 Migration, Conditionality, and Policy Waivers

	Labor Conditions		Fiscal Conditions		Condition Waivers	
	(10)	(11)	(12)	(13)	(14)	(15)
G5 Migrants $_{j,i}$ (per capita$_j$)	-30.423[+]		-19.072**		-3.382	
	(17.849)		(5.921)		(14.282)	
US Migrants$_j$ (per capita$_j$)		-8.073*		-3.976***		-8.100***
		(4.017)		(1.075)		(2.305)
UK Migrants$_j$ (per capita$_j$)		11.781		4.566[+]		28.432***
		(13.505)		(2.671)		(5.184)
JPN Migrants$_j$ (per capita$_j$)		-311.654		-189.424		-31.382
		(219.397)		(265.422)		(28.194)
GER Migrants$_j$ (per capita$_j$)		1.922		-3.779		1.942
		(6.702)		(3.857)		(6.128)
FRA Migrants$_j$ (per capita$_j$)		9.808		6.993*		7.582
		(10.001)		(3.511)		(6.549)
G5 Alliance	0.032	0.163	0.173[+]	0.198*	0.267	0.411*
	(0.213)	(0.243)	(0.092)	(0.095)	(0.175)	(0.185)
Polity	0.029*	0.027[+]	-0.012[+]	-0.011	-0.001	-0.007
	(0.015)	(0.015)	(0.007)	(0.007)	(0.010)	(0.010)
Total Imports from G5 (log)	0.081	0.088	0.022	0.033	0.150[+]	0.134[+]
	(0.081)	(0.080)	(0.046)	(0.048)	(0.078)	(0.081)
Total Exports from G5 (log)	-0.130*	-0.143*	-0.060[+]	-0.066[+]	-0.038	-0.027
	(0.065)	(0.064)	(0.034)	(0.035)	(0.066)	(0.067)
Total Number of Conditions	0.021***	0.021***	0.011***	0.011***	0.017***	0.017***
	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Observations	663	663	663	663	591	591

Note: Models 10, 11, 14, and 15 provide estimates using negative binomial regression. Models 12 and 13 provide estimates using Poisson regression. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and [+] indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.

the recipient country in Models A11 and A13. The migrant stock measures for European shareholders, however, are statistically indistinguishable from zero and in the wrong direction, regardless of the model specification.

We also find evidence that migration pressures to the US are important considerations of IMF fiscal conditionality. In Models 12 and 13, we estimate the number of fiscal policy conditions for IMF programs using the same set of controls.[20] Fiscal policy conditions include government budget-related issues and government borrowing. We again expect a negative relationship between migrant stocks and these types of conditionality, as fiscal consolidation and cuts to public service provisions are likely to exacerbate the costs of internal adjustment within the recipient country. Similar to labor policy conditions, we

---

[20]Fiscal conditionality models are estimated using Poisson regression due to problems of convergence in our negative binomial models.

find evidence that migration pressures to major shareholder countries are a significant predictor of the number of fiscal policy conditions. In Model 12, *G5 Migrants$_{j,i}$* is negative and statistically significant at the 0.01 level. We also find that it is again US migration pressures primarily driving this relationship, as the US migrant stock measure is negative and statistically significant at 0.001 level in Model 13. Robustness checks provided in Table A5 of the Appendix further confirm these findings. Note that the coefficients of the migration variables for labor conditions are more substantial than those for fiscal conditions. This is in accordance with our initial expectation that labor conditions are more closely linked to migration dynamics and are a more important consideration than fiscal conditions for the Fund.

These results may be interpreted in two ways. First, while we argue that migration pressures are certainly a main driver of the policy preferences of the European G5 members, it might be true that these countries seek to ameliorate the threat of migration through means other than altering conditionality. The empirical evidence we have provided above suggests increasing the size of IMF loans is one such alternative means. Second, the US may be more forceful in using its formal and informal influence in the areas of conditionality vis-à-vis other IMF shareholders. This would make it harder for the IMF's European shareholders to impose their preferences over conditionality during the negotiation of IMF programs. While we do not have a clear explanation for US dominance over conditionality, it is possible that congressional oversight of the Fund can induce the Fund to care more about the long-term migration consequences of IMF programs. Since senators have longer time horizons than executive incumbents, congressional oversight may pressure the Fund to use policy instruments, such as conditionality, that can have more enduring consequences than loans.

Finally, we assess whether migration pressures dictate flexibility during the implementation of IMF programs by looking at the number of condition waivers granted by the Fund. These results are shown in the far right column of Table 4. The coefficient on

G5 Migrants is insignificant in Model 14. Thus, we find no support for the argument that migration pressures to the G5 countries—at least when measured as whole—lead to greater flexibility in implementing IMF programs.[21]

The results indicate a different story when considering migrant stocks separately for each G5 member in Model 15. *UK Migrant Stock$_j$* is positive and statistically significant at the 0.001 level. Consistent with our first hypothesis, this shows migration pressures on the UK are likely to lead to greater flexibility by the Fund during IMF program implementation. By contrast, the coefficient for *US Migrant Stock$_j$* is negative. That is, there is some evidence to suggest migration pressures on the US are associated with *less* policy flexibility by the IMF during program implementation. Though past the scope of this article, we posit two explanations for this counterintuitive result. First, strict enforcement of IMF conditionality may be a form of punishment issued by the US. Withholding condition waivers might therefore be an attempt by US policymakers to alter the behavior of abusive governments, where emigration is also a concern. Second, the US may view the implementation of prescribed policy reforms as likely to improve economic conditions of the recipient country *in the long run*, especially for poor migrant-sending countries.

In sum, the findings in this article suggest a highly nuanced relationship between migration pressures and the Fund's behavior in lending. We find the most robust support for our hypotheses in the context of IMF loan size. When migration pressures are a concern for the G5 countries, the IMF tends to grant larger loans—especially when the recipient country is experiencing negative economic growth. However, this relationship appears to be primarily driven by concerns over migration to Europe. Moreover, the G5 countries may utilize different means toward reducing the "push" effect that IMF conditionality has on future migration. For instance, while migration pressures on the UK are associated with larger loans and more flexible IMF programs, US concerns over migration appear to drive the types of policy reforms imposed by the Fund.

---

[21]This null finding also holds in robustness checks provided in Table A6.

Conclusion

What does the IMF stand for? While we have known that the IMF has served the strategic interests of its major shareholders, most studies have focused on the familiar dynamics of international politics. In this article, we have highlighted the role of migration pressure as a determinant of who gets what from the Fund. Specifically, we have argued that the Fund grants larger loans and less stringent loan conditions to IMF recipients with large diasporas in the G5 states.

Our motivating case illustrates how the concerns of France, Germany, and the UK over Romanian immigration resulted in a generous loan package for the country and, at the same time, delayed the country's accession to the Schengen area. Analyzing the policy space from 1978 to 2013 with a new dataset on IMF conditionality, we have disaggregated IMF conditionality by policy types and analyzed three particular dimensions of IMF program design: (1) the size of loan, (2) the stringency of conditions attached to the loan, and (3) the number of condition waivers granted during the program implementation. Accordingly, our empirical findings support our theoretical expectation that IMF loan recipients with large diasporas in the G5 countries receive larger loans and more lenient loan conditions that reduce migration pressures faced by the IMF's major shareholders. Moreover, the link between IMF lending and migration pressure is especially striking when the economy of a borrowing country is underperforming.

Our depiction of the IMF as an International Migration Fund—a first in the literature to the extent of our knowledge—also paves the way for an exciting research program within the IMF literature. While this article demonstrates that the IMF stands for reduced migration into the G5 states, more research should explore how each G5 state uses the Fund's resources to reduce migration pressure into its territory. For instance, we find that the European IMF shareholders focus primarily on loan size while the US favors labor and fiscal conditions to achieve a similar outcome. Future research should investigate the inter-member dynamics within the Fund, and each G5 member's policy preferences and

control over specific IMF instruments with respect to international migration. In addition, we find preliminary evidence that IMF lending decisions are consequential in shaping international migration patterns. We explore this relationship between IMF loan stringency and emigration in Table A7 in the appendix.

Furthermore, this article builds upon broader research on international institutions and the relationship between state interests and IO behavior. Though the effectiveness and legitimacy of IOs are said to rest on their autonomy in international relations (Abbott and Snidal 1998; Barnett and Finnemore 2004), the actions of IOs tend to be closely shadowed by state interests in practice (Stone 2011; Lim and Vreeland 2013). In the case of the IMF, scholars have largely emphasized the geopolitical and commercial interests of powerful states in steering IMF programs (Thacker 1999; Oatley and Yackee 2004; Broz and Hawes 2006; Stone 2008; Copelovitch 2010b). Our findings instead suggest that G5 concerns over migration are important in shaping the size and content of IMF loans. This suggests then that economic globalization—while arguably increasing the need for global governance— can at the same time constrain the actions of IOs by inciting interference from the most powerful states. Future work should aim to test whether migration pressures lead to similar dynamics in other major international institutions.

Finally, this article contributes to the growing literature on how state concerns over migration drive their foreign economic policies, including the allocation of foreign aid (Bermeo and Leblang 2015), exchange rate regimes (Singer 2010), foreign direct investment (Leblang 2010), sovereign debt (Bernhard and Leblang 2016), and economic sanctions (Connell, Moya, and Shin 2018). These existing studies highlight that IMF loans are not the only mechanism used by the G5 to curtail migration pressure into their countries. Future research should examine the complementary between bilateral strategies and multilateral decisions in studying how migration shapes international relations. In addition, the findings of this article exemplify the growing importance of international migration in the international political economy research, as evidenced by recent research on trade and

immigration policies (Peters 2015; 2017), as well as the implications of natural resources for immigration policy (Shin 2017; Forthcoming). More broadly, our findings exemplify how the Bretton Woods institutions have evolved to mitigate globalization backlashes by reducing immigration inflows into the G5 countries in the new era of embedded liberalism (Ruggie 1982).

References

Abbott, Kenneth W, and Duncan Snidal. 1998. Why States Act through Formal International Organizations. *Journal of Conflict Resolution* 42 (1):3–32.

Angin, Merih. 2016. A Two-Level Principal-Agent Model of IMF Program Design: The Turkish Case. Paper presented at the 9th Annual Conference on The Political Economy of International Organizations (PEIO), The University of Utah.

Aradau, Claudia. 2008. *Rethinking Trafficking in Women: Politics Out of Security*. Springer.

———. 2009. The Roma in Italy: Racism as Usual? *Radical Philosophy* 153:2–6.

Atoyan, Ruben, Lone Christiansen, Allan Dizioli, Christian Ebeke, Nadeem Ilahi, Gil Mehrez Anna Ilyina, Haonan Qu, Faezeh Raei, Alaina Rhee, and Daria Zakharova. 2016. Emigration and Its Economic Impact on Western Europe. *Tech. rep.*, International Monetary Fund.

Bailey, Thomas, and Roger Waldinger. 1991. Primary, Secondary and Ethnic Labor Markets: A Training Systems Approach. *American Sociological Review* 56 (4):432–445.

Barnett, Michael, and Martha Finnemore. 2004. *Rules for the World: International Organizations in Global Politics*. Cornell University Press.

Barnett, Michael N, and Martha Finnemore. 1999. The Politics, Power, and Pathologies of International Organizations. *International Organization* 53 (4):699–732.

Bermeo, Sarah Blodgett, and David Leblang. 2015. Migration and Foreign Aid. *International Organization* 69 (3):627–657.

Bernhard, William T, and David Leblang. 2016. Sovereign Debt, Migration Pressure, and Government Survival. *Comparative Political Studies* 49 (7):907–938.

Boyd, Monica. 1989. Family and Personal Networks in International Migration: Recent Developments and New Agendas. *International Migration Review* 23 (3):638–670.

Breen, Michael. 2014. IMF Conditionality and the Economic Exposure of Its Shareholders. *European Journal of International Relations* 20 (2):416–436.

Briggs, Vernon M. 1984. *Immigration Policy and the American Labor Force*. Baltimore, MD: Johns Hopkins University Press.

———. 2001. *Immigration and American Unionism*. Ithaca, NY: Cornell University Press.

Broz, J Lawrence, and Michael Brewster Hawes. 2006. Congressional Politics of Financing the International Monetary Fund. *International Organization* 60 (2):367–399.

Brücker, Herbert, Stella Capuano, and Abdeslam Marfouk. 2013. Education, Gender and International Migration: Insights from a Panel-Dataset 1980-2010. *Methodology Report* .

Caraway, Teri L., Stephanie J. Rickard, and Mark S. Anner. 2012. International Negotiations and Domestic Politics: The Case of IMF Labor Market Conditionality. *International Organization* 66 (1):27–61.

Chwieroth, Jeffrey M. 2008. Normative Change from Within: The International Monetary Fund's Approach to Capital Account Liberalization. *International Studies Quarterly* 52 (1):129–158.

Connell, Brendan J., Samantha L. Moya, and Adrian J. Shin. 2018. Migration and Economic Coercion. *Unpublished Manuscript* .

Copelovitch, Mark S. 2010a. *The International Monetary Fund in the Global Economy: Banks, Bonds, and Bailouts*. Cambridge University Press.

Copelovitch, Mark S. 2010b. Master or Servant? Common Agency and the Political Economy of IMF Lending. *International Studies Quarterly* 54 (1):49–77.

Culic, Irina. 2008. Eluding Exit and Entry Controls: Romanian and Moldovan Immigrants in the European Union. *East European Politics and Societies* 22 (1):145–170.

Diminescu, Dana. 2004. Assessment and Evaluation of Bilateral Labour Agreements Signed by Romania. In *Migration for Employment: Bilateral Agreements at a Crossroads*, chap. 4, 65–73. OECD Publishing.

Dreher, Axel, and Nathan M Jensen. 2007. Independent Actor or Agent? An Empirical Analysis of the Impact of US Interests on International Monetary Fund Conditions. *The Journal of Law and Economics* 50 (1):105–124.

Dreher, Axel, Jan-Egbert Sturm, and James Raymond Vreeland. 2009. Global Horse Trading: IMF Loans for Votes in the United Nations Security Council. *European Economic Review* 53 (7):742–757.

———. 2015. Politics and IMF conditionality. *Journal of Conflict Resolution* 59 (1):120–148.

Eric, Fong, and Emi Ooka. 2006. Patterns of Participation in Informal Social Activities among Chinese Immigrants in Toronto. *International Migration Review* 40 (2):348–374.

Finnemore, Martha, and Kathryn Sikkink. 1998. International Norm Dynamics and Political Change. *International Organization* 52 (4):887–917.

Fitzgerald, Jennifer, David Leblang, and Jessica Teets. 2014. Defying the Law of Gravity: Political Economy of International Migration. *World Politics* 66 (3).

Focus Migration. 2017. Focus Migration: France. `http://http://focus-migration.hwwi.de/Romania.2515.0.html?&L=1`. Online; accessed 19-April-2018.

France Sends Roma Gypsies Back to Romania. August 20, 2010. `https://www.bbc.co.uk/news/world-europe-11020429`. Online; accessed 7-October-2018.

France Starts Removing Roma Camps. August 2, 2010. `https://www.bbc.com/news/world-europe-10892669`. Online; accessed 7-October-2018.

Freeman, Gary P. 1995. Modes of Immigration Politics in Liberal Democratic States. *International Migration Review* 29 (4):881–902.

Gould-Davies, Nigel, and Ngaire Woods. 1999. Russia and the IMF. *International Affairs* 75 (1):1–21.

Hainmueller, Jens, and Michael J. Hiscox. 2007. Educated Preferences: Explaining Attitudes Toward Immigration in Europe. *International Organization* 61 (2):399–442.

———. 2010. Attitudes toward Highly Skilled and Low-skilled Immigration: Evidence from a Survey Experiment. *American Political Science Review* 104 (1):61–84.

Haus, Leah. 2002. *Unions, Immigration, and Internationalization: New Challenges and Changing Coalitions in the United States and France*. New York: Palgrave Macmillan.

IMF. 2012. Public Information Notice: IMF Executive Board Discusses the Ex Post Evaluation of Exceptional Access Under the 2009 Stand-By Arrangement for Romania. `http://www.imf.org/en/News/Articles/2015/09/28/04/53/pn1231`.

———. 2018a. IMF Chronology. `http://www.imf.org/external/np/exr/chron/chron.asp`.

———. 2018b. IMF Conditionality. `https://www.imf.org/external/np/exr/facts/conditio.htm`.

Kentikelenis, Alexander E., Thomas H. Stubbs, and Lawrence P. King. 2016. IMF Conditionality and Development Policy Space, 1985–2014. *Review of International Political Economy* 23 (4):543–582.

Krasner, Stephen D. 1982. Regimes and the Limits of Realism: Regimes as Autonomous Variables. *International Organization* 36 (2):497–510.

Leblang, David. 2010. Familiarity Breeds Investment: Diaspora Networks and International Investment. *American Political Science Review* 104 (3):584–600.

Lim, Daniel Yew Mao, and James Raymond Vreeland. 2013. Regional Organizations and International Politics: Japanese Influence over the Asian Development Bank and the UN Security Council. *World Politics* 65 (1):34–72.

Mai, Nick. 2010. The Politicisation of Migrant Minors: Italo-Romanian Geopolitics and EU Integration. *Area* 42 (2):181–189.

Martinez-Diaz, Leonardo. 2009. Executive Boards in International Organizations. *Studies of IMF Governance* 82.

Massey, Douglas S., Joaquin Arango, Graeme Hugo, Ali Kouaouci, Adela Pellegrio, and J. Edward Taylor. 2005. *Worlds in Motion: Understanding International Migration at the End of the Millenium.* Oxford, UK: Oxford University Press.

Messina, Anthony M. 2002. *Western European Immigration and Immigration Policy in the New Century.* Westport, CT: Praeger Publishers.

Momani, Bessma. 2007. IMF Staff: Missing Link in Fund Reform Proposals. *The Review of International Organizations* 2 (1):39–57.

———. 2010. Canada's IMF executive director. *Canadian Public Administration* 53 (2):163–182.

Neumayer, Eric. 2005. Bogus Refugees? The Determinants of Asylum Migration to Western Europe. *International Studies Quarterly* 49 (3):389–410.

Oatley, Thomas, and Jason Yackee. 2004. American Interests and IMF Lending. *International Politics* 41 (3):415–429.

OECD. 2013. World Migration in Figures. *Tech. rep.*, Organisation for Economic Co-operation and Development, Paris.

Peters, Margaret E. 2015. Open Trade, Closed Borders: Immigration Policy in the Era of Globalization. *World Politics* 67 (1).

Peters, Margaret E. 2017. *Trading Barriers: Immigration and the Remaking of Globalization*. Princeton University Press.

Portes, Alejandro, and József Böröcz. 1989. Contemporary Immigration: Theoretical Perspectives on Its Determinants and Modes of Incorporation. *International Migration Review* 23 (3):606–630.

Rickard, Stephanie J., and Teri L. Caraway. 2014. International Negotiations in the Shadow of National Elections. *International Organization* 68 (3):701–720.

Riley, Dylan, and Rebecca Jean Emigh. 2002. Post-Colonial Journeys: Historical Roots of Immigration and Integration. *Comparative Sociology* 1 (2):169–191.

Ruggie, John Gerard. 1982. International Regimeds, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order. *International Organization* 36 (2):379–415.

Scheve, Kenneth F., and Matthew J. Slaughter. 2001. Labor Market Competition and Individual Preferences over Immigration Policy. *Review of Economics and Statistics* 83 (1):133–145.

Serbanescu, Ilie. March 2, 2011. Schengen Coincidences. *Romania Libera* .

Shain, Yossi. 1994. Ethnic Diasporas and U.S. Foreign Policy. *Political Science Quarterly* 109 (4):811–841.

Shin, Adrian J. 2017. Tyrants and Migrants: Authoritarian Immigration Policy. *Comparative Political Studies* 50 (1):14–40.

———. Forthcoming. Primary Resources, Secondary Labor: Natural Resources and Immigration Policy. *International Studies Quarterly* .

Singer, David Andrew. 2010. Migrant Remittances and Exchange Rate Regimes in the Developing World. *American Political Science Review* 104 (2):307–323.

Stiglitz, Joseph E. 2003. Democratizing the International Monetary Fund and the World Bank: Governance and Accountability. *Governance* 16 (1):111–139.

Stone, Randall W. 2002. *Lending credibility: The International Monetary Fund and the post-communist transition*. Princeton University Press.

———. 2004. The political economy of IMF lending in Africa. *American Political Science Review* 98 (4):577–591.

———. 2008. The Scope of IMF Conditionality. *International Organization* 62 (4):589–620.

———. 2011. *Controlling Institutions: International Organizations and the Global Economy*. Cambridge University Press.

Swank, Duane, and Hans-Georg Betz. 2003. Globalization, the Welfare State and Right-wing Populism in Western Europe. *Socio-Economic Review* 1 (2):215–245.

Thacker, Strom C. 1999. The High Politics of IMF Lending. *World Politics* 52 (1):38–75.

Vanderbush, Walt. 2009. Exiles and the Marketing of U.S. Policy toward Cuba and Iraq. *Foreign Policy Analysis* 5 (3):287–306.

Woods, Ngaire, and Domenico Lombardi. 2005. Effective Representation and the Role of Coalitions within the IMF. *Global Economic Governance Programme, Working Paper* .

Zolberg, Aristide R. 1989. The Next Waves: Migration Theory for a Changing World. *International Migration Review* 23 (3):403–430.

Appendix

Additional Tables

Table A1: Summary Statistics

Variable	N	Mean	SD	Min	Max
Loan Size (log)	663	2.666	1.143	0.335	8.353
Labor Policy Conditions	663	2.054	3.795	0	24
Condition Waivers	591	4.184	6.970	0	67
Fiscal Policy Conditions	663	7.127	9.172	0	67
G5 Migrants (per capita$_j$)	663	0.003	0.005	9.48E-06	0.048
US Migrant Stock (per capita$_j$)	663	0.0123	0.030	4.25E-06	0.262
UK Migrant Stock (per capita$_j$)	663	0.002	0.009	0	0.089
Japan Migrant Stock (per capita$_j$)	663	0.0001	0.001	0	0.018
Germany Migrant Stock (per capita$_j$)	663	0.004	0.010	0	0.064
France Migrant Stock (per capita$_j$)	663	0.003	0.007	0	0.063
G5 Alliance	663	0.290	0.454	0	1
Total Imports from G5 (log)	663	6.366	1.609	0	11.773
Total Exports to G5 (log)	663	6.099	1.999	.588	11.642
Polity	663	1.337	6.526	-9	10
GDP per Capita (log)	658	8.149	0.941	5.897	10.797
GDP (log)	648	10.400	1.607	6.482	14.689
GDP Growth	647	0.025	0.060	-0.360	0.205
Total Number of Conditions	663	43.403	40.713	2	294
G5 Colony	663	0.570	0.495	0	1
US Colony	663	0.007	0.087	0	1
UK Colony	663	0.259	0.439	0	1
JPN Colony	663	0.006	0.077	0	1
GER Colony	663	0.026	0.158	0	1
FRA Colony	663	0.284	0.451	0	1
Remittances (log)	528	18.216	2.689	9.209	23.353

Table A2: Conditional Effect of G5 Migration on IMF Loan Size

	(A1)	(A2)	(A3)
UK Migrant Stock$_j$ (per capita$_j$)	30.498**	30.564**	30.441**
	(9.025)	(9.798)	(9.775)
UK Migrants $\times$ GDP Growth	-223.299$^+$		
	(115.609)		
Germany Migrant Stock$_j$ (per capita$_j$)	14.603*	15.419*	15.280*
	(6.517)	(6.585)	(6.443)
Germany Migrants $\times$ GDP Growth		-24.462	
		(45.918)	
France Migrant Stock$_j$ (per capita$_j$)	14.846**	14.877**	17.207**
	(5.151)	(5.189)	(5.175)
France Migrants $\times$ GDP Growth			-167.378
			(135.224)
GDP Growth	-2.152**	-2.314**	-2.100*
	(0.732)	(0.791)	(0.803)
US Migrant Stock$_j$ (per capita$_j$)	-1.403	-1.755	-1.643
	(2.475)	(2.474)	(2.483)
Japan Migrant Stock$_j$ (per capita$_j$)	-5.997	-6.752	-7.307
	(17.595)	(17.893)	(17.606)
G5 Alliance	0.486*	0.499*	0.484*
	(0.238)	(0.240)	(0.240)
Polity	0.015	0.015	0.014
	(0.012)	(0.012)	(0.012)
Total Imports from G5 (log)	0.018	0.020	0.020
	(0.088)	(0.088)	(0.088)
Total Exports to G5 (log)	0.121$^+$	0.119$^+$	0.121$^+$
	(0.069)	(0.069)	(0.069)
Year Fixed Effects	✓	✓	✓
Observations	647	647	647

Note: These estimates are from ordinary least squares (OLS) regression. The dependent variable is the (logged) size of the loan for a given IMF program. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.

Table A3: G5 Migration and Loan Size (Robustness Checks)

| | Dependent Variable: Loan Size (log) | | | |
| | Per Capita of Recipient | | | Per Quota |
	(A4)	(A5)	(A6)	(A7)
G5 Migrants$_{j,i}$ (per capita$_j$)	37.408*		45.468**	1.603
	(16.480)		(16.269)	(7.371)
GDP Growth	-1.297		-2.095$^+$	0.130
	(0.881)		(1.148)	(0.716)
G5 Migrants × GDP Growth	-412.378**		-385.035*	-418.647**
	(155.853)		(173.605)	(135.890)
G5 Alliance	0.159	0.797*	0.131	0.165
	(0.233)	(0.318)	(0.221)	(0.105)
Polity	0.019	0.002	0.010	0.002
	(0.011)	(0.014)	(0.013)	(0.007)
Total Imports from G5 (log)	0.029		0.199$^+$	0.074
	(0.090)		(0.112)	(0.056)
Total Exports to G5 (log)	0.133$^+$		0.073	0.048
	(0.071)		(0.080)	(0.046)
G5 Colony	-0.339*		-0.392*	0.007
	(0.166)		(0.166)	(0.070)
US Migrant Stock$_j$ (per capita$_j$)		3.921		
		(2.483)		
UK Migrants$_j$ (per capita$_j$)		36.831**		
		(13.151)		
Japan Migrants$_j$ (per capita$_j$)		-219.338		
		(309.815)		
Germany Migrants$_j$ (per capita$_j$)		1.762		
		(7.157)		
France Migrants$_j$ (per capita$_j$)		13.987$^+$		
		(7.750)		
US Colony		-1.068**		
		(0.393)		
UK Colony		-0.725*		
		(0.318)		
France Colony		-0.512		
		(0.351)		
Japan Colony		5.053		
		(4.434)		
Germany Colony		-0.208		
		(0.396)		
Remittances (log)			-0.083*	
			(0.032)	
Controls for Bilateral Trade		✓		
Year Fixed Effects	✓	✓	✓	✓
Observations	647	444	528	550

Note: These estimates are from ordinary least squares (OLS) regression. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.

Table A4: G5 Migration and Labor Conditionality

	(A8)	(A9)	(A10)	(A11)	(A12)	(A13)
G5 Migrants $_{j,i}$ (per capita$_j$)	-30.010$^+$	-22.959	-52.812*			
	(18.048)	(17.234)	(22.591)			
US Migrants$_j$ (per capita$_j$)				-8.973*	-6.722	-11.731*
				(4.113)	(4.780)	(5.202)
UK Migrants$_j$ (per capita$_j$)				15.205	10.075	8.391
				(13.469)	(14.505)	(16.050)
JPN Migrants$_j$ (per capita$_j$)				-343.354	-268.812	-167.935
				(240.985)	(201.995)	(131.639)
GER Migrants$_j$ (per capita$_j$)				7.805	2.297	1.963
				(7.119)	(6.912)	(5.411)
FRA Migrants$_j$ (per capita$_j$)				11.564	9.402	1.660
				(10.014)	(9.599)	(9.613)
G5 Alliance	0.050	0.064	-0.013	0.281	0.183	0.097
	(0.218)	(0.214)	(0.159)	(0.270)	(0.247)	(0.171)
Polity	0.032*	0.027$^+$	0.034*	0.029$^+$	0.025$^+$	0.030*
	(0.015)	(0.015)	(0.013)	(0.015)	(0.015)	(0.013)
Total Imports to G5 (log)	0.100	0.104	0.462***	0.122	0.112	0.460***
	(0.084)	(0.080)	(0.082)	(0.082)	(0.079)	(0.080)
Total Exports to G5 (log)	-0.118$^+$	-0.154*	-0.011	-0.122$^+$	-0.167**	-0.023
	(0.070)	(0.064)	(0.063)	(0.069)	(0.063)	(0.063)
Total Number of Conditions	0.021***	0.022***	0.022***	0.020***	0.022***	0.022***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
GDP per Capita (log)	-0.086			-0.189		
	(0.119)			(0.127)		
GDP Growth		-0.716			-0.557	
		(0.996)			(0.975)	
GDP (log)			-0.584***			-0.576***
			(0.093)			(0.095)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Observations	658	647	648	658	647	648

Note: The dependent variable is the total number of labor conditions imposed on the IMF recipient country. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.

Table A5: G5 Migration and Fiscal Conditionality

	(A14)	(A15)	(A16)	(A17)	(A18)	(A19)
G5 Migrants$_{j,i}$ (per capita$_j$)	-18.968**	-12.779*	-25.246**			
	(6.156)	(5.916)	(7.934)			
US Migrants$_j$ (per capita$_j$)				-4.180***	-2.790*	-4.747***
				(1.130)	(1.108)	(1.360)
UK Migrants$_j$ (per capita$_j$)				5.945*	3.558	2.188
				(2.850)	(2.988)	(2.313)
JPN Migrants$_j$ (per capita$_j$)				-193.952	-179.136	-153.292
				(272.890)	(251.479)	(192.626)
GER Migrants$_j$ (per capita$_j$)				-1.734	-3.998	-3.766
				(4.208)	(3.974)	(3.276)
FRA Migrants$_j$ (per capita$_j$)				7.567*	6.917$^+$	3.473
				(3.488)	(3.548)	(3.523)
G5 Alliance	0.178$^+$	0.161$^+$	0.152$^+$	0.228*	0.177$^+$	0.167$^+$
	(0.095)	(0.091)	(0.081)	(0.098)	(0.096)	(0.086)
Polity	-0.011	-0.011$^+$	-0.010	-0.011	-0.010	-0.009
	(0.007)	(0.007)	(0.006)	(0.007)	(0.007)	(0.007)
Total Imports from G5 (log)	0.035	0.015	0.137**	0.048	0.027	0.142**
	(0.050)	(0.048)	(0.051)	(0.051)	(0.050)	(0.052)
Total Exports from G5 (log)	-0.059$^+$	-0.061$^+$	-0.015	-0.062$^+$	-0.066$^+$	-0.021
	(0.034)	(0.035)	(0.032)	(0.034)	(0.035)	(0.033)
Total Number of Conditions	0.011***	0.011***	0.011***	0.011***	0.011***	0.011***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
GDP per Capita (log)	-0.043			-0.065		
	(0.048)			(0.050)		
GDP Growth		-0.165			-0.026	
		(0.406)			(0.409)	
GDP (log)			-0.202***			-0.192***
			(0.046)			(0.045)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Observations	658	647	648	658	647	648

Note: The dependent variable is the count of fiscal conditions for a given IMF program. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.

Table A6: G5 Migration and IMF Program Waivers

	(A20)	(A21)	(A22)	(A23)	(A24)	(A25)
G5 Migrants$_{j,i}$ (per capita$_j$)	-3.722	1.701	-2.699			
	(13.876)	(16.646)	(17.047)			
US Migrants$_j$ (per capita$_j$)				-7.559**	-8.185**	-9.103**
				(2.315)	(3.009)	(3.032)
UK Migrants$_j$ (per capita$_j$)				27.838***	26.845***	27.002***
				(5.268)	(5.490)	(5.478)
JPN Migrants$_j$ (per capita$_j$)				-28.975	-15.530	-32.349
				(29.275)	(30.379)	(29.017)
GER Migrants$_j$ (per capita$_j$)				-2.786	3.180	3.262
				(6.536)	(5.729)	(6.308)
FRA Migrants$_j$ (per capita$_j$)				6.068	9.631	8.113
				(6.646)	(6.682)	(6.757)
G5 Alliance	0.218	0.289	0.286	0.311	0.450*	0.446*
	(0.183)	(0.180)	(0.180)	(0.206)	(0.191)	(0.190)
Polity	-0.005	-0.007	-0.002	-0.009	-0.012	-0.007
	(0.010)	(0.010)	(0.010)	(0.011)	(0.010)	(0.010)
Total Imports from G5 (log)	0.097	0.204**	0.190$^+$	0.091	0.187*	0.177$^+$
	(0.077)	(0.077)	(0.098)	(0.078)	(0.079)	(0.101)
Total Exports from G5 (log)	-0.031	-0.070	-0.057	-0.022	-0.062	-0.048
	(0.069)	(0.065)	(0.070)	(0.070)	(0.067)	(0.071)
Total Number of Conditions	0.018***	0.019***	0.018***	0.017***	0.018***	0.018***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
GDP per Capita (log)	0.150$^+$			0.153		
	(0.087)			(0.098)		
GDP Growth		-3.148**			-3.113**	
		(1.149)			(1.152)	
GDP (log)			-0.005			-0.009
			(0.090)			(0.090)
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Observations	586	577	578	586	577	578

Note: The dependent variable is the count of waivers for a given IMF program. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.
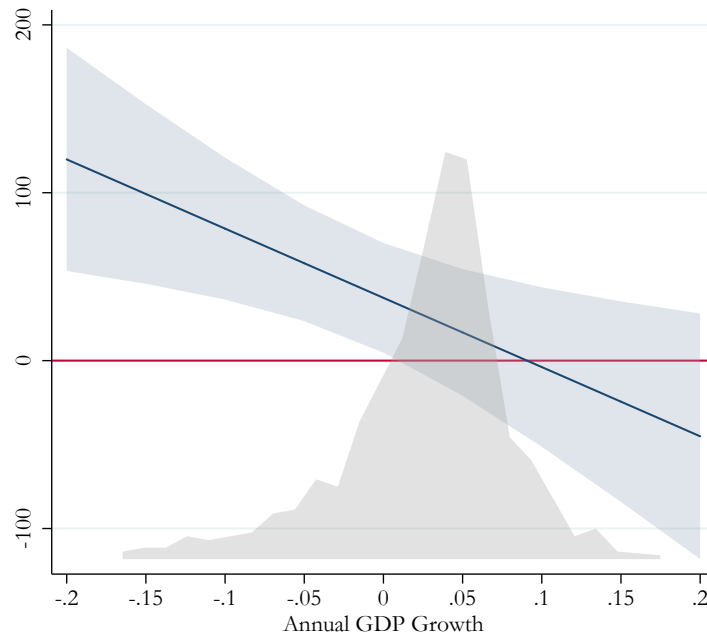
Additional Figures

Figure A1: Marginal Effect of Migrant Stocks Conditional on GDP Growth (UK)
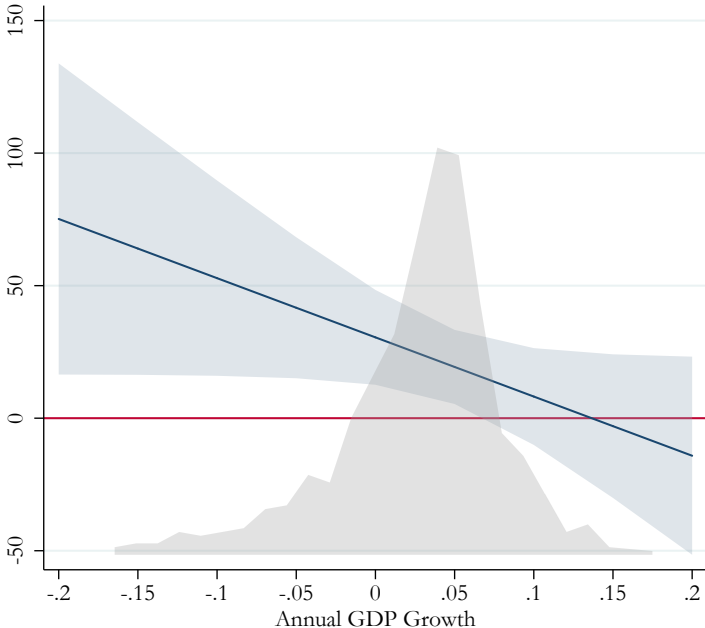
Note: The blue area denotes 95% confidence intervals.

Figure A2: Marginal Effect of G5 Migrant Stocks (Model A4)

Note: The blue area denotes 95% confidence intervals.

IMF Programs and Emigration

An assumption of our main argument is that stricter IMF lending—whether in the form of smaller loans, more stringent conditions, or less policy flexibility—is likely to increase the flow of emigration out of the recipient country. More accurately, it is only important that G5 policymakers *believe* this dynamic is at play. Nevertheless, we explore in this section whether IMF lending exhibits an observable effect on emigration rates in borrowing countries.

IMF lending and emigration rates may associate with each other for two different reasons. Most straightforward, IMF programs can induce negative short-term economic effects, such as a rise in unemployment and reduced public spending, which encourage workers to seek better economic opportunities abroad. The opposite may be true of generous IMF programs with more flexible approaches to policy conditionality. However, IMF programs can also signal to workers their job opportunities and socioeconomic welfare will diminish (or increase) in the future. In this sense, IMF programs can shape the *beliefs* of individuals, which may alter how they perceive the opportunity costs (and potential benefits) of migration. If this is true, the effects of IMF lending on emigration will exist independently of the macroeconomic conditions within the borrowing country.

As a first cut empirical test of this relationship, we use country-year emigration data from Brücker, Capuano, and Marfouk (2013), which contains the rate of low-skill emigration to OECD countries at five-year intervals between 1985 and 2010. The advantage of this data is that it allows us to detect flows specifically to advanced industrial democracies, while also measuring the movement of *low-skill* migrants who are typically most vulnerable to cuts in public spending and other forms of austerity. Our sample comprises a total of 111 IMF recipient countries. Because we only observe emigration rates every five years (e.g., 1980, 1985, etc.), we take the preceding five-year average of all independent variables. For example, for an observation in the year 1985, we take the average GDP per capita from 1980 to 1984 to proxy for a country's economic development. The structure of the data

prohibits us from making any strong claims on the relationship between IMF lending and immigration. Accordingly, the results are intended to be only suggestive.

Table A7: IMF Lending and Emigration in Borrowing Countries

	(A26)	(A27)	(A28)
Low Skill Emigration (log)$_{t-1}$	0.965***	0.862***	0.863***
	(0.114)	(0.083)	(0.083)
Loan Size per Capita$_j$ (log)	0.000	-0.005$^+$	-0.005$^+$
	(0.002)	(0.003)	(0.003)
Labor Conditions	0.095	0.031	0.038
	(0.065)	(0.067)	(0.067)
Conditions Waived	-0.032*	-0.033*	-0.040*
	(0.015)	(0.015)	(0.018)
GDP per Capita		0.000*	0.000*
		(0.000)	(0.000)
Polity		0.000	0.000
		(0.000)	(0.000)
Population (log)		-0.003	-0.002
		(0.002)	(0.002)
GDP Growth			0.000
			(0.000)
Year Fixed Effects	✓	✓	✓
Observations	377	362	358
R^2	0.732	0.740	0.741

Note: The dependent variable is the rate of low-skill emigration at time t. Standard errors are clustered on country and are shown in parentheses. ***, **, *, and $^+$ indicate statistical significance levels of .1, 1, 5, and 10 percent, respectively.

Model (A26) regresses a country's rate of low-skill emigration on three variables of interest: (1) a country's total loan size per capita (log); (2) the amount of labor conditions imposed (as a percentage of total IMF conditions imposed); and (3) the percentage of conditions formally waived by the IMF. To establish causal priority, these variables are used to estimate the next *observed* emigration rate. For instance, a country that receives a loan in 2002 is attached its respective emigration rate in 2005.[22] We also include year fixed effects and a lagged value of the dependent variable, which is a country's rate of low-skill emigration at $t - 5$. According to our theory, we predict labor conditionality to be associated with higher rates of emigration, while larger loans and more condition waivers should be negatively associated with lower rates of emigration.

---

[22]If a country experiences multiple IMF programs within a given five-year interval, we simply treat this as one observation by taking the mean loan size and calculating the percentage of labor conditions and waivers as a total of all policy conditions across all IMF programs.

As shown in Table A7, the coefficients on Labor Conditions and Conditions Waived are in the predicted direction. However, only the percentage of condition waivers is statistically significant at conventional levels. Among IMF recipients, a greater percentage of program waivers is associated with lower rates of low-skill emigration to OECD countries. Loan Size per Capita (log) is statistically insignificant. Model (A27) introduces a series of controls, including GDP per Capita, Polity, and Population (log). Conditions Waived is again statistically significant at the 0.05 level and in the predicted negative direction. Here too, Loan Size per Capita (log) is negative and statistically significant at the 0.10 level. Thus, there is some evidence that larger IMF loans are associated with lower rates of emigration.

To explore whether IMF programs affect emigration through tangible economic effects or signaling effects as described above, we next include a control for annual GDP growth in Model (A28). Relative to Model (A27), the estimates for Loan Size per Capita (log) and Conditions Waived are virtually unchanged. This tentatively suggests that IMF programs affect emigration by signaling information about future policy changes to workers in recipient countries.