International Migration and Interstate Conflict

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Abstract: What is the relationship between international migration and interstate conflict? While some argue that migration increases the likelihood of conflict, we argue that, on balance, bilateral migration between states reduces the probability of conflict because migration increases bilateral economic interdependence. Growth in migrant networks contributes to bilateral trade which, in turn, increases the opportunity costs of conflict. To test this expectation, we construct a novel measure of migrant-induced bilateral trade and test our argument on the incidence of interstate conflicts between 1970 and 2010. We conclude that once accounting for the conflict-reducing role of migrant-induced trade, international migration has a negligible independent effect on interstate conflict.

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I. Introduction

Political and social conflict over international migration appears to be increasing around the world. From the India-Bangladesh border, to the Venezuelan refugee crisis in South America, to heightened tensions over immigration enforcement in the United States and the European Union, immigration increasingly seems to be at the center of conflict, both within and between states. It is unclear, however, whether these are merely anecdotes or indications of a broader phenomenon because, despite the increasing interest in the connection between population flows and the spread of conflict (e.g. Nordas & Gleditsch 2007), we know surprisingly little about the relationship between international migration and interstate conflict.

We remedy this deficit by connecting two literatures that, to this point, have developed in isolation from one another. The first — developed by scholars interested in the relationship between interdependence and conflict — finds that trade linkages, all else equal, lower the probability of bilateral conflict (Martin, Mayer, & Thoenig 2008; Mansfield and Pollins 2001).[1] This body of work, however, is largely silent on the origins of bilateral trade linkages. Research in the political economy of global migration, however, finds that immigrant ties between countries increase bilateral trade: migrants have both a taste for products created in their homelands (enhancing imports) and also have specialized knowledge of market demand at home (enhancing exports) (Rauch & Trindade 2002; Sangita 2013; Parsons & Winters 2014). Pulling these threads together, we argue that the increase in bilateral trade that is attributable to migrants has a negative effect on the propensity of countries to engage in conflict.

Empirically evaluating this argument requires that we think carefully about how to generate a valid measure of migrant-induced bilateral trade, and how to model the effect of migrant-induced trade on the probability of interstate conflict. To accomplish this, we utilize a canonical instrumental variables regression strategy from the literature on trade and economic growth to estimate the increment in trade between two countries that is attributable to bilateral migration (Frankel and Romer 1999; Feyrer 2019). We then treat this estimate of migrant-induced trade as the independent variable of interest in a model of interstate conflict.

[1] This literature is vast. For a relatively recent review, see Schultz (2015).

Across a variety of specifications, we find consistent evidence that migrant-induced trade reduces the probability of conflict between two states. Moreover, when we account for migrant-induced trade, bilateral migration appears to have relatively little independent impact on the probability of conflict. This suggests that trade is the main mechanism by which migrants influence conflict between countries, which we take as an important corrective to the small literature that finds that migration increases conflict (e.g. Docquier, Ruyssen, & Schiff 2018).

In the section that follows, we discuss extant work on migration and conflict and build on this to develop a theory of migrant-induced trade and conflict. We next introduce our data and provide more detail on our measurement strategy for migrant-induced trade. We then present our main results and discuss the robustness of our findings. We conclude with a discussion of potential directions for future research.

II. The migration-conflict nexus

Research exploring the relationship between international migration and conflict is sparse.[2] What work there is tends to posit a wide range of mechanisms, relying on anecdotes rather than systematic empirical evidence. Existing work produces a laundry list of ways by which migration might increase or reduce potential conflict. These include: the creation of transnational altruistic bonds (Hoffman 2010); interest groups and diaspora lobbying efforts; strategic information advantages; the costs induced by immigration (Docquier, Ruyysen, & Schiff 2018); and increased ethnic tensions (Kharoufi 1994). Some of the anecdotes are similarly suggestive. Certainly, some interstate conflicts such as the aptly-named "Soccer War" between Honduras and El Salvador in 1969 were undoubtedly driven by migration (Anderson 1981). Hitler's invasion of the Sudetenland and the Mauritania-Senegal Border War are other commonly cited anecdotes.

We explore whether there is a systematic relationship between international migration and conflict across time and space that is well-grounded in existing theoretical and empirical

[2] The term "migration" can refer either to *labor* migration, which represents the *voluntary* movement of people across national borders, or *forced* migration, including refugees and asylum seekers. We do not distinguish theoretically or empirically between these different kinds of migratory flows here. Other research suggests that refugees might be a mechanism by which conflict spreads (e.g. Gleditsch, Nordas, & Saleh 2007; Nordas & Gleditsch 2007; Salehyan 2008; Burrows & Kinney 2016).

research. To accomplish this, we focus on the relationship between migration, international economic exchange, and the probability of conflict. We argue that increases in bilateral migration between two countries enhance the volume of bilateral trade. The result of this migrant-induced trade is an increase in the opportunity costs of war; that is, conflict results in a loss in gains from international trade which, in turn, decreases the marginal utility of bilateral conflict. Our expectation, then, is that migration-induced trade *reduces* conflict between countries because it increases the value of trade between these countries, which makes going to war more costly.

The causal relationship between migration and trade has deep historical and theoretical roots. Historically, migrant and co-ethnic networks played an important role in facilitating international economic exchange, especially when formal institutions did not exist (Greif 1989; 1993; Cohen 1997). Dense migrant networks help potential trading partners overcome information asymmetries, especially in the context of weak legal and contract enforcement (Kapur 2014; Weidenbaum & Hughes 1996). For instance, the international spread of Chinese co-ethnic networks consistently strengthens bilateral trade ties between countries with large Chinese diasporas and China itself (Rauch & Trindade 2002). Beyond particularistic cases, evidence suggests that this is a generalizable economic phenomenon: the role of migrants in reducing information asymmetries in international business networks leads to a significant strengthening of bilateral trade ties (Sangita 2013; Parsons & Winters 2014).

It is also well-documented that increased bilateral trade interdependence reduces the probability of conflict between two countries. When migrants increase trade between countries to a level higher than it would have been otherwise, they increase the opportunity costs of going to war; engaging in conflict would entail forgoing the welfare gains associated with increased bilateral trade (Martin, Mayer & Thoenig 2008). This results in a reduced probability of bilateral conflict.[3] A wealth of evidence—using different empirical specifications—supports the general claim that deeper bilateral trade ties reduce the probability of bilateral conflict (Hegre, Oneal, & Russett 2010; Li & Reuveny 2011; Carter & Goemans 2014).[4]

[3] We do not theoretically anticipate that migrant networks are associated with changes in *multilateral* trade, which would have separate influences on the probability of conflict (Martin, Mayer, & Thoenig 2008).
[4] However, see Schultz (2015) for an alternative perspective, which suggests that evidence on the relationship between trade and conflict is more mixed.

Our focus on migration as having conflict-reducing externalities has substantial precedent. Karl Deutsch (1957) pioneered arguments about migration and its corresponding "transaction flows" as a contributor to international peace. Keohane and Nye (1977) posit a similar logic in their conception of "complex interdependence," in which economic exchange, migration, and other global interactions combine to generate a sense of identity and shared community that helps mitigate violent conflict. These authors were not alone in making such arguments – Blainey (1988) spends a good part of *The Causes of War* addressing what he sees as the widely held notion that connectedness between countries, through forces like trade and migration, should reduce conflict, suggesting the continued importance of such arguments only a quarter-century ago.

In sum, our theoretical argument is straightforward: growing migrant networks increase the volume of bilateral trade flows; the effect of this increase in bilateral trade dependence results in a decreased probability of conflict. Our theoretical linkage is well-supported by existing empirical research and applies more generally to the international system than mechanisms previously proposed that link migration to conflict. Additionally, it has the attractiveness of uniting two empirical findings that developed autonomously into a unified framework for understanding a new relationship.

We know of one paper examining the relationship between international migration and conflict, finding (counter to our theoretical expectations) that international migration *increases* the probability of conflict between two states (Docquier, Ruyysen, & Schiff 2018). That article does not test any particular mechanism and the empirical strategy they employ is not well-suited to test the mechanism by which we expect international migration to reduce conflict. Since they independently include a measure of bilateral trade in their models, they ultimately ignore the well-documented relationship between international migrant stocks and bilateral trade between countries, and estimate the effect that migration has *independent* of its effect on international trade. Our argument suggests that their finding that migration increases conflict may be the result of misattributing the conflict-reducing effect of migrants to international trade alone. We take steps in the sections that follow to explore this possibility.

III. Data and empirical strategy

We test our theoretical argument on the universe of non-directed country dyads from 1970 to 2010, employing widely used datasets on international migrant stocks, bilateral trade flows, and interstate conflict. Our argument requires that we think carefully about how to appropriately measure migrant-induced trade and its effects on international conflict. We discuss the particulars of our measurement strategy as well as the rest of our data and modeling strategy in the remainder of this section.

Measuring migrant-induced trade

Generating a theoretically and empirically valid estimate of the bilateral trade that is induced by bilateral migrant stocks is not straightforward. In essence, we are asking a very difficult counterfactual question: in the absence of international migration, what is the expected level of trade between two countries? To answer this question, we draw on a canonical instrumental variables strategy pioneered by Frankel and Romer (1999), and extended to a panel setting by Feyrer (2019), to create a credible estimate of migrant-induced bilateral trade.

Frankel and Romer's (1999) interest was in estimating the effect of trade on a country's rate of economic growth. The challenge they confronted was endogeneity: a country's rate of growth can be plausibly considered a determinant of the size of its tradable sector. Their solution to this challenge was to draw on a gravity model of bilateral trade. A gravity model of trade — like Newton's law of gravity — holds that the volume of trade between two countries is a function of size of the countries and the distance between those countries. In this formulation, size is measured by the size of the market and distance serves as a proxy for the transaction costs associated with moving goods between the two markets. These gravity models have been augmented over time to incorporate other variables, especially measures of transactions costs, such as whether the two countries share a common border, a common colonial heritage, and a common language.[5]

Frankel and Romer (1999) use this gravity model to construct the "natural" level of trade, and use that measure as an instrument in their trade-and-growth regressions. The natural level of

[5] See Head and Mayer (2013) for a more thorough review and discussion.

trade can be treated as exogenous, as the covariates used to estimate natural trade—distance, language, colonial heritage, and contiguity—are pre-determined largely by both history and geography. Our first step, in line with Frankel and Romer, is to model bilateral trade as a function of variables traditionally included in gravity models of international trade: the natural log of distance between countries *i* and *j*, whether countries *i* and *j* are contiguous, whether countries *i* and *j* have ever been part of the same country, whether countries *i* or *j* have colonized each other or have a common colonizer, and total population. These variables are all plausibly exogenous as they are, with the exception of population, fixed by geography or history. From this model, we obtain the predicted value of total bilateral trade between countries *i* and *j* that is "naturally" expected from gravity-based variables alone.

The primary limitation of this approach is that nearly all of the gravity-based variables utilized are time-invariant, resulting in only cross-sectional variation.[6] To extend the Frankel-Romer strategy to a panel setting, we interact the gravity variables with year dummy variables to identify and estimate the time-varying effect that these variables have on bilateral trade; the rationale is that changing costs of transportation and communication will change the costs associated with international trade (Feyrer 2019).[7] This allows us to generate yearly predicted values, which we interpret as a time-varying measure of "natural" bilateral trade.

Our second step is to estimate an identical gravity-based model of bilateral trade, adding a lagged measure of total bilateral migrant stocks between countries *i* and *j* as an independent variable. From this model we also obtain the predicted value of total bilateral trade that is expected both "naturally" from simple gravity-based variables *and* from bilateral migrant stocks between countries *i* and *j*. Third, and finally, we take the difference in predicted values of bilateral trade between countries *i* and *j* from these two models. This allows us to construct our primary variable, $MigrantTrade_{ijt}$, which represents the difference in predicted values of bilateral trade between countries *i* and *j* at time *t* that is due to the size of bilateral migrant stocks.

[6] While population is time-varying, population growth is quite slow over time, and relative differences in population between countries are almost entirely time-invariant. All other gravity variables are self-evidently time-invariant.
[7] This estimation procedure has become a workhorse model in the economics literature on international migration and on international trade (e.g. Alesina et al. 2016; Beine & Parsons 2015; Docquier et al. 2014; 2016).

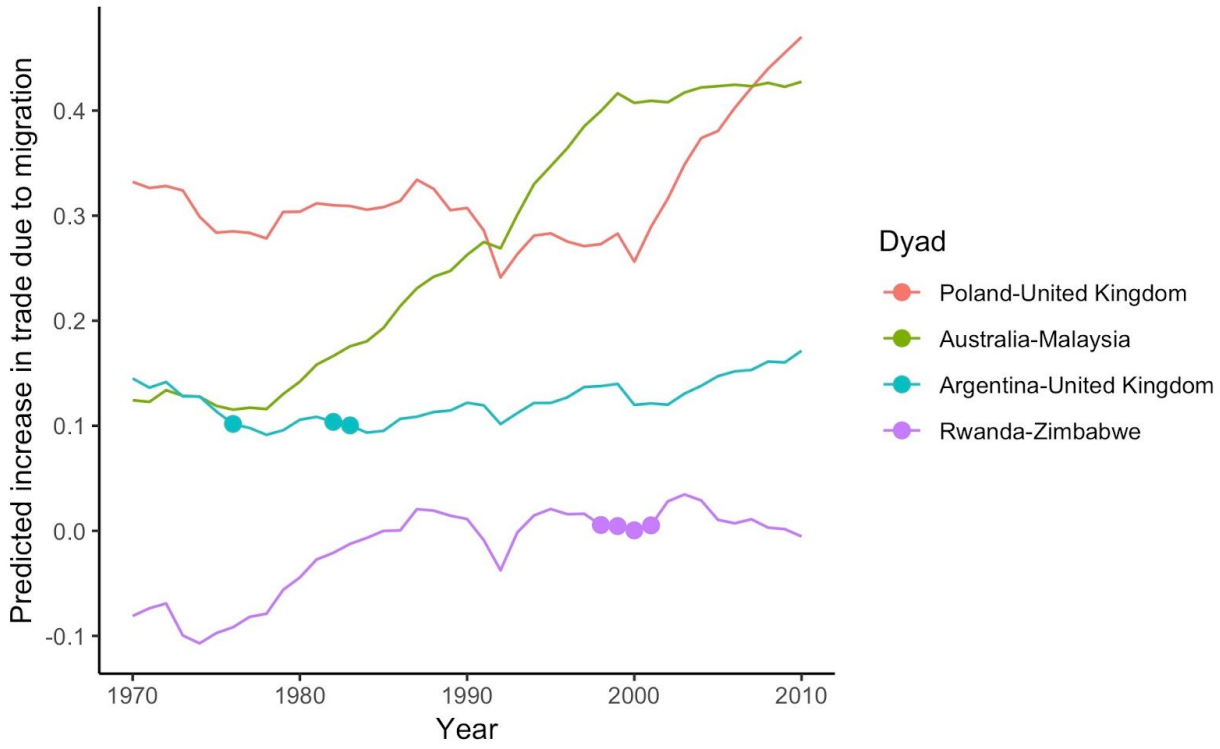

Figure 1: Measure of migrant-induced trade for selection of illustrative country dyads over time.

We measure bilateral trade flows in these models using Barbieri and Keshk's (2016) Correlates of War Trade Data Set; we take the natural log of total bilateral trade to adjust for potential skewness. To measure bilateral migrant stocks, we draw on the Global Bilateral Migration Database (GBMD), which estimates bilateral migrant stocks for all country dyads on a decennial basis from 1960 to 2000 (Özden et al. 2011). We extend this panel using the World Bank's bilateral migration matrix for 2010, and linearly interpolate the data between the years for which data is available. Given the structure of this data, we take the natural log of total bilateral migrant stocks and lag this variable by 10 years before including it in our second-step model. Data on distance, contiguity, historical same-country status, and historical colonial relationships come from the CEPII gravity database (Head, Mayer, & Ries 2010). Data on population comes from the World Bank's World Development Indicators dataset.

Figure 1 shows $MigrantTrade_{ijt}$, our measure of migrant-induced trade, from 1970 to 2010 for four illustrative dyads: Poland-United Kingdom, Australia-Malaysia, Argentina-United

Kingdom, and Rwanda-Zimbabwe. Each of these dyads have significant migratory flows over time, notable instances of conflict, or both. They also represent heterogeneous corridors of migration by level of economic development. Dots on the time series represent years in which the dyad is involved in a MID. The figure documents notable temporal and cross-sectional variation in our measure of migrant-induced trade. Note that $MigrantTrade_{ijt}$ is not constrained to be positive: in the case of the Rwanda-Zimbabwe, there are many years in which the predicted difference in trade that is attributable to migrants is slightly negative. However, $MigrantTrade_{ijt}$ is positive in about 80 percent of all dyad-years, again echoing previous empirical findings that international migration increases bilateral trade flows.

Measuring interstate conflict

Measuring our dependent variable, interstate conflict, is more straightforward. We draw on the Correlates of War's Militarized Interstate Dispute (MID) dataset that records conflicts between all non-directed dyads throughout our sample period (Zeev et al. 2019). Our primary dependent variable, MID_{ijt}, takes the value of 1 if the MID dataset codes countries *i* and *j* as being in a conflict that involves the display of force (level 3), the use of force (level 4), or war (level 5) at time *t*, and 0 otherwise.[8]

Given well-documented concerns regarding the limitations of the MIDs dataset as a comprehensive measure of interstate conflict (e.g. Huth et al., 1993; Gleditsch and Hegre, 1997; Mitchell and Prins, 1999; Cohen and Weeks 2009), we also draw on the Peace Research Institute Oslo's (PRIO) Armed Conflict dataset as an alternative measurement strategy (Gleditsch et al. 2002). This dependent variable, $PrioConflict_{ijt}$, takes the value of 1 if the PRIO dataset codes countries *i* and *j* as being in an external conflict at time *t*, and 0 otherwise.

Control variables

We also collect data on several potential confounding variables that may simultaneously affect migrant stocks, migrant-induced trade, and interstate conflict. $JointDemocracy_{ijt}$, which controls for regime type, takes the value of 1 if countries *i* and *j* both have a Polity score of 7 or

[8] The MIDs dataset identifies war as a conflict involving the use of force that results in 1,000 or more battle deaths.

greater at time *t* and 0 otherwise (Marshall, Gurr, & Jaggers 2018). $CapRatio_{ijt}$, which controls for the relative economic and military capabilities in a given dyad, represents the ratio of composite capabilities for the country with greater capabilities to the country with the lesser capabilities in a given dyad at time *t*. Data on composite capabilities comes from the Correlates of War's National Material Capabilities dataset (Singer, Bremer, & Stuckey 1972; Singer 1987); we take the measure of each country's composite capabilities from this dataset.

To control for pre-existing affinities between countries in the international system, we include $IdealDiff_{ijt}$, which represents the absolute difference in ideal points in the United Nations General Assembly between countries *i* and *j* at time *t*. These data come from Bailey, Strezhnev, and Voeten's (2017) United Nations General Assembly Voting dataset. $GDPDiff_{ijt}$, which controls for relative differences in economy size in a given dyad, represents the natural log of the difference between the country with the larger economy and the country with the smaller economy in a given dyad at time *t*. Data on GDP come from the World Bank's World Development Indicators. As we discuss in the section that follows, our use of dyad fixed effects obviates the need for additional control variables that are time-invariant.

Estimation strategy

We estimate a series of dyadic random effects effects logistic regressions with the following specification:

$$MID_{ijt} = \alpha + \beta_1 MigrantTrade_{ijt-1} + \beta_2 ln(JointMigration_{ijt-1}) + \beta_3 JointDemocracy_{ijt-1} + \beta_4 ln(CapRatio_{ijt-1}) + \beta_5 ln(Population_{ijt-1}) + \beta_6 IdealDiff_{ijt-1} + \beta_7 ln(GDPDiff_{ijt-1}) + \beta_8 X_{ij} + \varepsilon_{ijt}$$

where MID_{ijt} represents whether the dyad is currently involved in a militarized interstate dispute, $MigrantTrade_{ijt-1}$ represents our measure of migrant-induced trade as discussed above, $ln(JointMigration_{ijt-1})$ represents the natural log of joint bilateral migrant stocks, $JointDemocracy_{ijt-1}$ represents whether a dyad is jointly democratic, $ln(CapRatio_{ijt-1})$

represents the military capability ratio for the dyad, $ln(Population_{ijt-1})$ represents the natural log of total population in the dyad, $IdealDiff_{ijt-1}$ represents the absolute difference in UN ideal points, $ln(GDPDiff_{ijt-1})$ represents the natural log of the difference in GDP in the dyad, and X_{ij} is a vector of dyadic random effects. All independent variables are lagged by one year.

While we prefer to estimate this model with dyad random effects to partially control for potential unobserved factors specific to a dyad, we alternatively estimate this equation using a linear probability model and dyadic fixed effects to ensure consistency. In addition, while it results in a massive amount of data loss, we estimate this model using conditional dyadic fixed effects logistic regression as an additional alternative estimation strategy.

We first estimate our model on the universe of non-directed dyads. However, following common alternative practice in the conflict literature, we also limit the analysis to politically relevant dyads (Lemke & Reed 2001), while controlling for GDP differentials to address concerns about sample selection bias (Benson 2005). As discussed above, we also estimate these identical models using our alternative dependent variable, $PrioConflict_{ijt}$, which represents whether a dyad is currently involved in an external conflict.

It is possible that our non-standard measurement strategy for migrant-induced trade, which is itself a predicted value derived from an empirical model, means that traditional estimates of uncertainty are biased. As a further robustness check, we bootstrap our supplemental linear probability models to calculate bias-corrected measures of uncertainty.

IV. Results

Table 1 presents our main statistical results. Columns (1) and (2) are estimated with MID_{ijt} as the dependent variable, while columns (3) and (4) are estimated with $PRIOConflict_{ijt}$ as the dependent variable. Columns (1) and (3) are estimated with the universe of non-directed dyads, while columns (2) and (4) are limited only to politically relevant dyads. In all models, migrant-induced trade has a negative and statistically significant effect on the probability of conflict, in line with our theoretical argument. Interestingly, when accounting for the effects of migrant-induced trade, there appears to be only a small detectable independent

Table 1: Migrant-induced trade and interstate conflict

	MID_{ijt}		$PRIOConflict_{ijt}$	
	(1)	(2)	(3)	(4)
	All	Politically relevant	All	Politically relevant
$MigrantTrade_{ijt-1}$	-1.624***	-1.041***	-3.333	-0.435**
	(0.545)	(0.229)	(2.140)	(0.193)
$ln(JointMigration_{ijt-1})$	0.245*	0.196***	0.588	-0.149
	(0.127)	(0.049)	(0.461)	(0.063)
$JointDemocracy_{ijt-1}$	-0.982***	-0.704	-1.214	-0.432
	(0.280)	(0.471)	(1.184)	(0.491)
$ln(CapRatio_{ijt-1})$	0.090	0.001	0.494	0.190
	(0.123)	(0.382)	(0.715)	(0.261)
$ln(Population_{ijt-1})$	0.463***	-0.058	0.639	0.074
	(0.120)	(0.437)	(1.051)	(0.258)
$IdealDiff_{ijt-1}$	0.742***	0.792*	0.359	-0.110
	(0.196)	(0.455)	(0.882)	(0.729)
$ln(GDPDiff_{ijt-1})$	-0.084	-0.260	-0.227	-0.290
	(0.083)	(0.317)	(0.347)	(0.375)
$Constant$	-20.501***	-6.719	-29.429	-12.022
	(3.605)	(8.653)	(37.411)	(13.232)
Observations	181,041	16,551	181,041	16,551
Dyad random effects	Yes	Yes	Yes	Yes

All models are estimated using dyad random-effects logistic regression with robust standard errors clustered by dyad. *** $p < .01$. ** $p < .05$. * $p < .1$

effect of joint bilateral migrant stocks on the probability of conflict. This effect is not consistently statistically significant at conventional level. This provides some evidence, as we

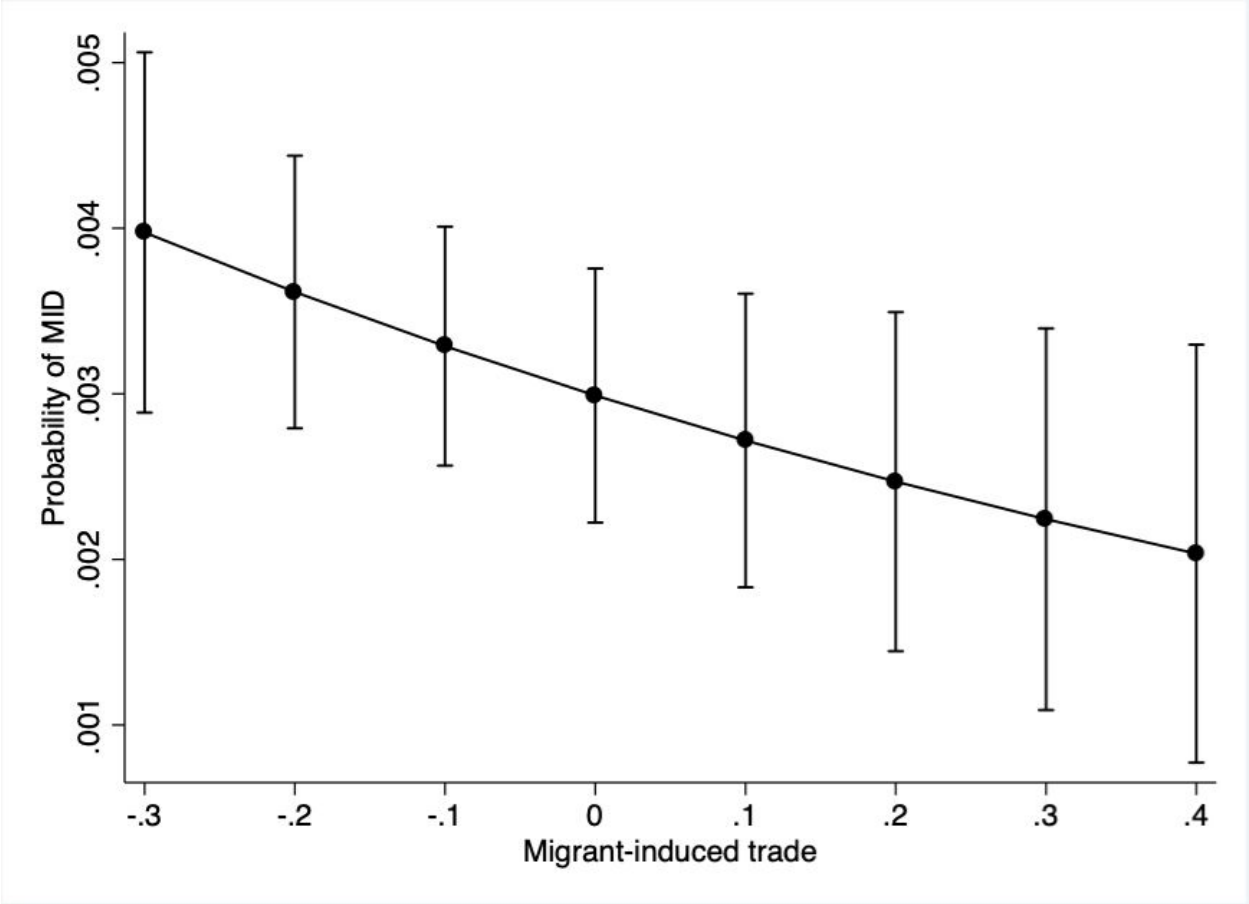

Figure 2: Predicted probability of a MID in a given dyad-year across levels of migrant-induced trade, with 95% confidence intervals. Calculated from Model (1) in Table (1).

suggested earlier, that previous studies estimating a positive effect of bilateral migration on conflict do not account for the conflict-diminishing effects of migrant-induced trade.[9]

Figure 2 shows the predicted probability that a given dyad-year will be in a MID across different levels of $MigrantTrade_{ijt}$. The predicted probabilities are calculated for the range of two standard deviations above and below the mean value of $MigrantTrade_{ijt}$. While conflict is (fortunately) rare in general (the probability that any given dyad is in a MID at time *t* is 0.0025), the figure illustrates the declining probability of conflict as migrant-induced trade increases. The fact that these decreases in the probability of conflict occur yearly means that even if the

[9] In results not reported here, we also run models controlling for total bilateral trade; migrant-induced trade continues to have a negative and statistically significant effect (results available upon request).

estimated effect is small, the cumulative effect of migrant-induced trade on conflict over time becomes more substantial.

We ensure that our results are not an artefact of the modeling strategy we employ in a variety of ways. First, we alternatively estimate the same set of models using a linear probability model with dyadic fixed effects. Those results are available in Appendix Table A.1; the results are consistent with our primary models. Second, although it results in a massive amount of data loss, we estimate dyadic conditional fixed effects regression models with MID_{ijt} as the dependent variable for both the universe of dyads and the politically relevant sample. These results are available in Appendix Table A.2. Keeping in mind the potential selection problems that such a modeling strategy presents, migrant-induced trade still has a negative and statistically significant effect on the probability of conflict in these specifications.

Finally, there is some concern that given $MigrantTrade_{ijt}$ is itself an estimate from statistical models and so is potentially measured with error, traditional estimates of uncertainty are inadequate. As a result, we bootstrap our dyadic fixed effects linear probability models to calculate bias-corrected 95% confidence intervals of all coefficients using 1,000 replications of the model. These results are available in Appendix Table A.3; migrant-induced trade still has a negative and statistically significant effect when using this alternative measure of uncertainty.

In what kinds of dyads is the effect of migrant-induced trade most concentrated? We explore potential heterogeneous effects of migrant-induced trade across different classes of dyads. Previous research finds heterogeneous effects of bilateral migrant stocks across migration corridors with differing levels of economic development (Docquier, Rapoport, & Schiff 2018). Similarly, we classify countries as being in the Global North or Global South based on the World Bank's income classifications - high-income countries are part of the Global North and low- and middle-income countries are part of the Global South. We then separately estimate our model of interstate conflict on South-South, North-South, and North-North dyads alone to explore the potential heterogeneous effects of migrant-induced trade on the probability of conflict. Table 2

Table 2: Migrant-induced trade and interstate conflict across migration corridors: All dyads

	MID_{ijt}		
	(1)	(2)	(3)
	N-S	S-S	N-N
$MigrantTrade_{ijt-1}$	-2.152	-1.467***	-2.690*
	(2.305)	(0.436)	(1.572)
$ln(JointMigration_{ijt-1})$	0.222	0.214**	0.619**
	(0.323)	(0.094)	(0.243)
$JointDemocracy_{ijt-1}$	-0.995**	-0.840***	-1.603**
	(0.396)	(0.321)	(0.698)
$ln(CapRatio_{ijt-1})$	0.089	0.025	0.262
	(0.428)	(0.212)	(0.217)
$ln(Population_{ijt-1})$	0.377	0.526**	0.316
	(0.236)	(0.230)	(0.199)
$IdealDiff_{ijt-1}$	1.129**	0.792***	-0.028
	(0.458)	(0.256)	(0.377)
$ln(GDPDiff_{ijt-1})$	0.156	-0.158	0.298*
	(0.201)	(0.122)	(0.169)
$Constant$	-24.268	-21.371***	-18.063***
	(28.309)	(3.428)	(4.320)
Observations	79,218	83,545	18,278
Dyad random effects	Yes	Yes	Yes

All models are estimated using dyad random-effects logistic regression with robust standard errors clustered by dyad. *** $p < .01$. ** $p < .05$. * $p < .1$

displays the results for each corridor, both for MID_{ijt} and $PRIOConflict_{ijt}$, for all dyads. Table 3 displays analogous results for politically relevant dyads only.[10]

One striking preliminary result is that the conflict-reducing effect of migrant-induced trade seems to be most consistent in South-South dyads, regardless of the dependent variable.

[10] Appendix Tables A.4 and A.5 show analogous results using a dyadic fixed effects linear probability model.

Table 3: Migrant-induced trade and interstate conflict across migration corridors: Politically relevant dyads

	MID_{ijt}		
	(1)	(2)	(3)
	N-S	S-S	N-N
$MigrantTrade_{ijt-1}$	-2.252***	-0.980***	-0.589
	(0.772)	(0.220)	(0.529)
$ln(JointMigration_{ijt-1})$	0.255***	0.272	0.259
	(0.070)	(0.187)	(0.207)
$JointDemocracy_{ijt-1}$	-0.489	-0.821	-1.263
	(0.526)	(0.631)	(0.841)
$ln(CapRatio_{ijt-1})$	0.030	-0.223	0.444**
	(0.279)	(0.271)	(0.200)
$ln(Population_{ijt-1})$	-0.057	-0.222	0.146
	(0.379)	(0.264)	(0.265)
$IdealDiff_{ijt-1}$	1.299**	-0.202	0.739*
	(0.337)	(0.887)	(0.446)
$ln(GDPDiff_{ijt-1})$	-0.280	-0.104	-0.601**
	(0.337)	(0.374)	(0.238)
$Constant$	-7.658	-1.925	-1.704
	(8.993)	(4.739)	(5.801)
Observations	9,706	2,892	3,953
Dyad random effects	Yes	Yes	Yes

All models are estimated using dyad random-effects logistic regression with robust standard errors.
*** $p < .01$. ** $p < .05$. * $p < .1$

While the estimated effect migrant-induced trade remains negative in North-South dyads and in North-North dyads, this effect does not reach statistical significance as consistently across samples. Given that the majority of MIDs and PRIO external conflicts occur in dyads that consist of two Global South countries, this means that migrant-induced trade might play a particularly important pacifying role in the most conflict-prone areas of the world. One potential explanation

for this finding is that South-South dyads are most likely to represent countries that are relatively more symmetric in terms of their military and economic power. In dyads that are relatively more asymmetric in terms of capabilities, the loss of the gains from migrant-induced trade may be less salient to the decision to engage in conflicts, as other interests may dominate.

In sum, our results suggest that, via its positive impact on economic interdependence, international migration is largely a pacifying force in the international system. Across a variety of specifications, migrant-induced trade has a negative and substantively important impact on the probability of interstate conflict. Preliminary analysis broken down by different migration corridors suggests that the effects of migrant-induced trade are most consistent in South-South dyads, which may be due to relative capability symmetry. We consider these findings to be an important addition to a small literature that has previously emphasized international migration as a driver of interstate conflict (Nordas & Gleditsch 2007; Docquier, Ruyssen, & Schiff 2018).

V. Conclusion

Despite increasing assertions in some circles that international migration might drive interstate conflict, there is surprisingly little research establishing this relationship. We have found support for the opposite — migrants reduce the probability of interstate conflict because they tend to induce trade interdependence. We establish this relationship by employing a novel measurement strategy to estimate migrant-induced bilateral trade, and using this measure, we broadly find support for our theoretical argument. The empirical results suggest that migrant-induced trade consistently leads to a lower probability of interstate conflict, and that once accounting for the effect of migrant-induced trade, immigration has a negligible independent impact on the probability of conflict. International migration is largely a pacifying force. This finding bridges a significant divide between the IPE and conflict literatures on this topic, which had obscured the scope of the relationships among migration, trade, and conflict.

There are a number of ways in which this finding could potentially be extended. First, international trade is only one facet of what Keohane and Nye (1977) call "complex interdependence." Migration may in fact drive other international economic or cultural interdependencies that could further reduce conflict. For instance, it is increasingly recognized

that migrants are associated with increased foreign direct investment (FDI) and venture capital investment between countries (Pandya & Leblang 2017), which also has well-documented pacifying effects (Polachek, Seiglie, & Xiang 2007; Li 2008; Bussmann 2010). We could easily extend our gravity-based strategy to measure migrant-induced bilateral FDI, allowing us to explore if the same interdependence dynamics from bilateral trade are present.

In addition, while we use data on aggregated bilateral migrant stocks and aggregate bilateral trade to explore the relationship between international migration and interstate conflict, another possibility would be to explore potential heterogeneous effects based on a) the kinds of bilateral trade that migration induces and b) the skill profile of bilateral migrant stocks. Li and Reuveny (2011) argue that the effect of bilateral trade on conflict is heterogeneous based on the composition of trade by industry. One could similarly estimate the effect that bilateral migrant stocks have on different kinds of international trade. Similarly, one might consider the heterogeneous effects of variation in the skill composition of migrant stocks (Sangita 2013).

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Appendix Table A.1: Migrant-induced trade and interstate conflict - OLS estimates

	MID_{ijt}		$PRIOConflict_{ijt}$	
	(1)	(2)	(3)	(4)
	All	Politically relevant	All	Politically relevant
$MigrantTrade_{ijt-1}$	-0.0361***	-0.0488***	-0.0233***	-0.0277**
	(0.0104)	(0.0107)	(0.0071)	(0.0118)
$ln(JointMigration_{ijt-1})$	-0.0001	0.0037**	0.0008**	0.0014
	(0.0016)	(0.0017)	(0.0004)	(0.0013)
$JointDemocracy_{ijt-1}$	-0.002***	-0.0075*	0.0001	0.0002
	(0.0005)	(0.0039)	(0.0002)	(0.0017)
$ln(CapRatio_{ijt-1})$	-0.0004	-0.0049**	-0.0000	-0.0002
	(0.0005)	(0.0022)	(0.0001)	(0.0003)
$ln(Population_{ijt-1})$	0.0046***	0.0152**	0.0018***	0.0086***
	(0.001)	(0.0070)	(0.0005)	(0.0030)
$IdealDiff_{ijt-1}$	0.0017***	0.0070***	0.0001**	0.0001
	(0.0003)	(0.0019)	(0.00003)	(0.0003)
$ln(GDPDiff_{ijt-1})$	0.0001	0.0023	0.0001**	0.0005
	(0.0003)	(0.0026)	(0.00003)	(0.0003)
$Constant$	-0.072***	-0.271***	-0.028***	-0.147***
	(0.015)	(0.101)	(0.0087)	(0.050)
Observations	181,030	16,551	181,030	16,551
Dyad fixed effects	Yes	Yes	Yes	Yes

All models are estimated with OLS and robust standard errors. *** $p < .01$. ** $p < .05$. * $p < .1$

Appendix Table A.2: Migrant-induced trade and interstate conflict - conditional fixed effects logistic regressions

	MID_{ijt}	
	(1)	(2)
	All	Politically relevant
$MigrantTrade_{ijt-1}$	-1.125***	-0.905***
	(0.305)	(0.299)
$ln(JointMigration_{ijt-1})$	0.067	0.091
	(0.043)	(0.064)
$JointDemocracy_{ijt-1}$	-0.820***	-0.775**
	(0.243)	(0.333)
$ln(CapRatio_{ijt-1})$	-0.142	-0.886*
	(0.294)	(0.457)
$ln(Population_{ijt-1})$	0.881**	0.200
	(0.444)	(0.786)
$IdealDiff_{ijt-1}$	0.726***	0.716***
	(0.162)	(0.247)
$ln(GDPDiff_{ijt-1})$	0.047	0.075
	(0.128)	(0.234)
Observations	3,995	1,448
Dyad fixed effects	Yes	Yes

Models are estimated using dyad conditional fixed effects logistic regression. Model also include control for previous conflicts and cubic time spline. *** $p < .01$. ** $p < .05$. * $p < .1$

Appendix Table A.3: Migrant-induced trade and interstate conflict - bootstrapped estimates

	MID_{ijt}		$PRIOConflict_{ijt}$	
	(1)	(2)	(3)	(4)
	All	Politically relevant	All	Politically relevant
$MigrantTrade_{ijt-1}$	-0.037* (-0.089, -0.012)	-0.046* (-0.096, -0.027)	-0.023 (-0.085, 0.0006)	-0.023* (-0.062, -0.001)
$ln(JointMigration_{ijt-1})$	0.0003 (-0.002, 0.004)	0.0032* (0.0004, 0.041)	0.0008 (-0.000, 0.005)	0.001* (0.0001, 0.005)
$JointDemocracy_{ijt-1}$	-0.002* (-0.003, -0.001)	-0.009 (-0.021, 0.001)	0.000 (-0.000, 0.0007)	0.002 (-0.003, 0.001)
$ln(CapRatio_{ijt-1})$	-0.0004 (-0.002, 0.001)	-0.005 (-0.025, 0.003)	-0.000 (-0.0002, 0.0001)	-0.00004 (-0.003, 0.001)
$ln(Population_{ijt-1})$	0.005* (0.002, 0.010)	0.013 (-0.008, 0.042)	0.002 (-0.000, 0.007)	0.007 (-0.0000, 0.021)
$IdealDiff_{ijt-1}$	0.002* (0.001, 0.003)	0.007* (0.0003, 0.017)	0.0001* (0.000, 0.0002)	-0.0003 (-0.003, 0.001)
$ln(GDPDiff_{ijt-1})$	0.0001 (-0.001, 0.001)	0.001 (-0.007, 0.011)	0.000 (-0.000, 0.0004)	-0.0002 (-0.002, 0.001)
Observations	181,030	16,551	181,030	16,551
Dyad fixed effects	Yes	Yes	Yes	Yes

All models are estimated with OLS. Bootstrapped 95% confidence intervals reported based on 1,000 resamples and replications. $* p < .05$.

Appendix Table A.4: Migrant-induced trade and interstate conflict across migration corridors: All dyads - OLS estimates

	MID_{ijt}			$PRIOConflict_{ijt}$	
	(1)	(2)	(3)	(4)	(5)
	N-S	S-S	N-N	S-S	N-N
$MigrantTrade_{ijt-1}$	-0.013	-0.057***	-0.009	-0.046***	0.0002
	(0.009)	(0.021)	(0.006)	(0.013)	(0.0002)
$ln(JointMigration_{ijt-1})$	0.0001	-0.003	0.003**	0.001	0.000
	(0.0007)	(0.005)	(0.001)	(0.001)	(0.00001)
$JointDemocracy_{ijt-1}$	-0.001***	-0.002**	-0.005***	0.0005	-0.001
	(0.0004)	(0.001)	(0.002)	(0.0004)	(0.0006)
$ln(CapRatio_{ijt-1})$	-0.0013	0.0005	-0.002	-0.000	-0.0002
	(0.0008)	(0.0005)	(0.003)	(0.0001)	(0.0001)
$ln(Population_{ijt-1})$	0.003***	0.007***	-0.004*	0.003***	-0.0001
	(0.001)	(0.002)	(0.0025)	(0.001)	(0.0001)
$IdealDiff_{ijt-1}$	0.0015***	0.0027***	-0.0001	0.0001**	0.0003
	(0.0004)	(0.0006)	(0.001)	(0.00006)	(0.0003)
$ln(GDPDiff_{ijt-1})$	0.0000	-0.0001	0.001	0.00001	0.00002
	(0.0004)	(0.0004)	(0.0006)	(0.00004)	(0.00003)
$Constant$	-0.049***	-0.010***	0.061	-0.046***	0.002
	(0.0157)	(0.026)	(0.038)	(0.0132)	(0.003)
Observations	79,218	83,545	18,278	83,545	18,278
Dyad fixed effects	Yes	Yes	Yes	Yes	Yes

All models are estimated with OLS and robust standard errors. *** $p < .01$. ** $p < .05$. * $p < .1$

Appendix Table A.5: Migrant-induced trade and interstate conflict across migration corridors: Politically relevant dyads - OLS estimates

	MID_{ijt}			$PRIOConflict_{ijt}$	
	(1)	(2)	(3)	(4)	(5)
	N-S	S-S	N-N	S-S	N-N
$MigrantTrade_{ijt-1}$	-0.046**	-0.056***	-0.000	-0.029	0.0018
	(0.020)	(0.020)	(0.005)	(0.021)	(0.0014)
$ln(JointMigration_{ijt-1})$	0.0047*	-0.005	0.0018	-0.016	0.0001
	(0.0025)	(0.016)	(0.001)	(0.013)	(0.0002)
$JointDemocracy_{ijt-1}$	-0.003	-0.051	-0.013	0.002	-0.007
	(0.003)	(0.033)	(0.010)	(0.017)	(0.005)
$ln(CapRatio_{ijt-1})$	-0.007***	0.005	-0.039	-0.002*	-0.0006
	(0.0025)	(0.003)	(0.025)	(0.001)	(0.0009)
$ln(Population_{ijt-1})$	0.011	0.086*	-0.027*	0.019	-0.0016
	(0.007)	(0.046)	(0.016)	(0.012)	(0.0012)
$IdealDiff_{ijt-1}$	0.008***	0.003	0.009*	-0.002	0.002
	(0.003)	(0.004)	(0.005)	(0.0012)	(0.0018)
$ln(GDPDiff_{ijt-1})$	0.004	-0.009	0.001	-0.001	-0.0005
	(0.003)	(0.009)	(0.007)	(0.002)	(0.0006)
$Constant$	-0.231**	-1.501*	0.469**	-0.323	0.036
	(0.114)	(0.774)	(0.207)	(0.002)	(0.027)
Observations	9,706	2,892	3,953	2,892	3,953
Dyad fixed effects	Yes	Yes	Yes	Yes	Yes

All models are estimated with OLS and robust standard errors. *** $p < .01$. ** $p < .05$. * $p < .1$