

Welcome Goods, Unwelcome Neighbors: Regional Factor Abundance and the Globalization Backlash in Southern Africa

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Abstract

Canonical trade models predict that labor-abundant developing countries should support globalization. This stylized model obscures variation within the Global South, however, such as differences between middle-income democracies and their poorer neighbors, as well as potentially divergent preferences across trade and migration. We present a regional Stolper–Samuelson framework in which preferences depend on relative *regional*, not global, factor endowments, specifically in labor, driving opposition to openness among the most insecure workers. Countries like South Africa are labor-abundant globally but capital-abundant regionally, and thus should support trade openness while opposing low-skilled migration from poorer neighbors. Afrobarometer data from 39 countries (2016–2025) confirm this pattern: Regional, not global, factor abundance predicts migration backlash net of receiver status, while support for trade openness remains near-universal. Pre-registered conjoint experiments in South Africa and Zimbabwe test the hypothesized mechanism. South Africans oppose immigrants from Zimbabwe, particularly low-skilled migrants, and this penalty intensifies with economic insecurity. In Zimbabwe, by contrast, we find no comparable pattern. Trade preferences in neither country vary systematically with economic insecurity. Goods and labor markets thus operate at different scales: regional relative abundance shapes the backlash to migration, but not to trade in developing countries.

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1 Introduction

The lowering of barriers to the movement of goods and capital across borders was a defining feature of the second half of the twentieth century. With globalization came immense gains in wealth for countries and individuals around the world. Along with many ‘winners,’ globalization also created ‘losers’ and thus widening inequalities within many countries (Flaherty and Rogowski, 2021). Indeed, the global integration of supply chains meant that significant portions of manufacturing activities once performed in advanced industrial countries moved offshore to lower-income countries, while the liberalization of capital flows allowed developing countries to access much-needed investment to finance their development.

In this sense, macro-level studies of globalization have largely confirmed the predictions of canonical trade models (Heckscher-Ohlin/Stolper-Samuelson) wherein advanced industrial nations, being abundant in capital and scarce in low-skilled labor, have experienced rising inequality and increasing returns to capital, while semi- and low-skilled workers in the North became the ‘losers’ in competition from lower-wage economies (Burgoon, 2009, Rodrik, 1998, Scheve and Slaughter, 2001). At the same time, the labor-abundant and capital-scarce countries of the Global South experienced significant welfare gains from openness.

Despite the net welfare gains, therefore, the sharp distributional consequences of falling barriers to trade and the integration of China into the global economy have captured the attention of scholars in recent years. Automation, off-shoring of production, and import competition from low-income countries, especially China, have dramatically changed the industrial landscape of the global north (Autor, Dorn and Hanson, 2016, Colantone and Stanig, 2018). The political consequences of these changes have been profound. Across advanced industrial countries, industrial labor market adjustments, along with the income loss, status and cultural threats felt by workers “left behind” by globalization have been linked variously to the rise of nativism, anti-immigrant populism, and more broadly, a *globalization backlash* (Baccini and Weymouth, 2021, Broz, Frieden and Weymouth, 2021, Clark, Pinto and Tanabe, 2022, Colantone and Stanig, 2018, Mansfield, Milner and Rudra, 2021, Margalit,

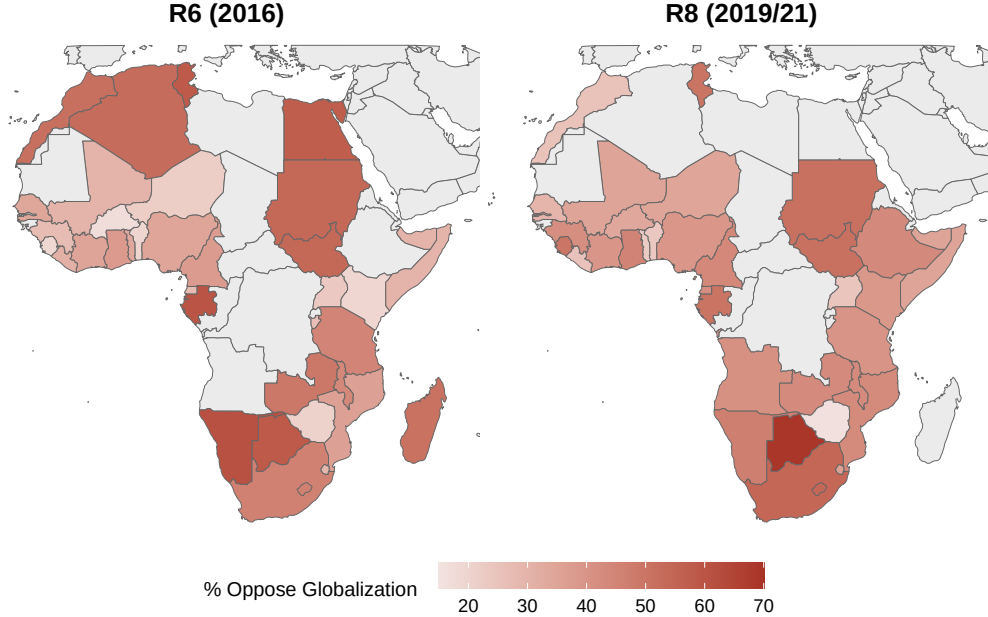
2012, 2019^{a,b}, Mutz, 2018, Norris and Inglehart, 2019, Pástor and Veronesi, 2021, Rho and Tomz, 2017, Walter, 2021). As the contours of this debate over the nature and consequence of these challenges to the liberal international order have brought attention to the political and economic transformation in the United States and Europe, the vast majority of the world's population living outside the advanced industrial nations has been largely overlooked, as recent research has sought to rectify (Baker, 2003, Beaulieu, Benarroch and Gaisford, 2004, Linardi and Rudra, 2020, Rudra, Nooruddin and Bonifai, 2021). This oversight is somewhat understandable, as developing countries have generally benefited from globalization at the macroeconomic level, and free trade remains generally popular in the Global South.

However, this picture of a contented Global South becomes less clear, or consistent with global-scale trade theories, if we move beyond the developing/developed dichotomy and examine differences *within and between* developing countries (Menéndez González, Owen and Walter, 2023). For example, Figure 1 illustrates the variation in anti-globalization sentiment across different African countries. When we examine the heterogeneity among middle-income and lower-income countries in that region and disaggregate attitudes toward the flow of goods and people across borders, the picture is more complex than the stylized theories in the global factor models would predict. What is needed is a more precise and localized theory of globalization and its backlash in the Global South.

Our argument highlights the importance of migration as a flash point of discontent with globalization in middle-income countries. Indeed, the reduction of barriers to the movement of capital, goods, and people across borders prompted a dramatic increase in migration in the last quarter century. Not only did refugees from crises such as war and famine cross borders, but a significant share of migrants were also what are considered “economic migrants.” Particularly in sub-Saharan Africa, the prevalence of civil war, chronic poverty, and underdevelopment became important “push factors” in the flow of migrants across borders (Kersting, 2009).

Analysis of the World Bank's Global Bilateral Migration Database, moreover, shows that

Figure 1: Globalization Backlash in Africa



Note: Respondents were presented with two statements and asked which they agreed with more. Statement 1: People living in [West/South/East/North/Central] Africa should be allowed to move freely across international borders to trade or work in other countries. Statement 2: Because foreign migrants take jobs and foreign traders sell goods at very low prices, governments should protect their own citizens by restricting the cross-border movement of people and goods. Respondents who agreed with Statement 2 were classified as expressing high levels of globalization backlash in the map. Source: Afrobarometer Rounds 6 (2015–2016) and 8 (2019–2021), the waves in which this question was available.

migration has increased progressively over time within Africa (Crush and Chikanda, 2018, Flahaux and De Haas, 2016). Although the data are imprecise, research suggests that the scale of “South-South” migration by 2020 was even greater than that from South to North (Bakewell et al., 2009, Schewel and Debray, 2024). UN data, for instance, suggest that 63 percent of African migrants are living in the Global South (Crush and Chikanda, 2018).

This study takes on the question of that Global South heterogeneity directly. In doing so, we argue for a geographically-relevant understanding of factor abundance in our theories of citizens’ support for globalization. If one looks more closely at middle-income and lower-income developing countries in a regional context, the notion of a ‘globalization backlash’ (or lack thereof) in the Global South becomes considerably more complicated. As Peters (2015) has observed, even though canonical models predict that openness to the movement of trade, capital, and labor across borders has the same effect, “economic theory tells us little

about which policy or policies states should choose when they want to open their economies (p.115).” This is a question that this study seeks to address through analysis of citizens’ attitudes toward globalization on the more relevant scales of relative abundance: global for trade, and regional for migration.

Employing a regional understanding of relative abundance of capital and labor, we argue that despite generally favorable attitudes toward trade openness, middle-income countries in the Global South that are recipients of low-skill immigration from poorer neighbors should display more negative attitudes toward globalization. Thus, the relatively richer countries in the Global South may display attitudes that more closely resemble those of citizens in the Global North when it comes to labor competition.¹ We argue that relative factor abundance should be regarded not only globally, but also in *regional* terms, particularly for labor, if we are to better understand citizens’ attitudes toward both trade and migration.

We center our empirical analysis on a pair of neighboring countries: South Africa and Zimbabwe. Compared to advanced industrial nations, South Africa is relatively abundant in labor, but globally capital scarce. However, as one of the most industrialized countries in Sub-Saharan Africa, South Africa is relatively *abundant* in capital, and an exporter of manufactured goods to the continent. It is also the recipient of the greatest number of migrants from the African continent,² Despite its relative wealth in the region, South Africa remains highly unequal and beset with extremely high unemployment. We argue that it is the most economically vulnerable citizens in South Africa will be most opposed to such in-migration.

Whereas South Africa is a net *importer* of low-skilled labor from neighboring countries on the continent, Zimbabwe is a net *exporter* of labor, even as it is the recipient of migrants from even poorer neighbors, such as Malawi. We expect the overwhelming pull of emigra-

¹This is well illustrated by countries such as Argentina and Brazil (Figure A.1), which have anti-globalization attitudes that are closer to the Global North than to other Latin American countries.

²Statistics South Africa. “*Most migrants to South Africa come from the SADC region for employment.*” Published March 26, 2024. <https://www.statssa.gov.za/?p=17111>. Accessed: November 21, 2025.

tion from Zimbabwe, especially to South Africa, to generate broad support for emigration in Zimbabwe. We thus separate attitudes toward in- and out-migration as well as import and export dimensions of trade policy preferences. Consistent with our preregistered expectations, we expect citizens in both countries to favor exports over imports. However, drawing on the regional framework developed in this paper, we further argue that South Africans may have attitudes toward import competition that more closely resemble those of citizens in advanced industrial nations.

We test this argument first with broad cross-national data from Afrobarometer (R6-R10, 2016-2025) to establish the observational patterns of regionally-relative factor abundance driving preferences for openness. We then turn to test the mechanisms behind these findings through a pre-registered survey experiment in South Africa and Zimbabwe in September-December, 2024, which evaluates the causal effect of migrant origin, skill level, and trade partner on citizens' attitudes toward trade and migration policy. Our argument suggests that the degree and variation in economic insecurity among citizens shapes opposition to migration, but not trade openness.

Our cross-national analysis of 39 African countries shows that regional factor abundance strongly predicts anti-immigrant attitudes across the continent. By contrast, absolute income has no discernible relationship with anti-immigrant attitudes, while migrant stocks are negatively associated with them. These findings suggest that opposition to immigration is associated more with countries' relative structural position within the region than their absolute wealth or the volume of migration they receive. Our conjoint experiments in both countries corroborate the evidence. South African respondents penalize migration from Zimbabwe more strongly than Zimbabwean respondents penalize migration from South Africa. Both populations also penalize low-skilled migrants, with the low-skill penalty significantly larger in South Africa. We further examine what moderates these preferences by leveraging a conjoint design that independently varies trade partner and migrant origin within respondents, allowing us to compare responses to the same neighboring country across trade and

migration. In South Africa, the migration penalty becomes significantly larger among respondents who believe they could not replace their job, whereas the trade penalty toward Zimbabwe exhibits no comparable economic gradient and instead varies with xenophobic attitudes. Generalized hostility toward Zimbabwe cannot explain why economic insecurity amplifies opposition to migration from that country but not to trade with it. Labor-market competition can.

Our paper makes three contributions to the political economy of globalization. First, we show how the Stolper-Samuelson logic travels to the Global South once factor abundance is evaluated at the regional scale relevant to factor mobility. For trade, the global distribution of endowments remains the appropriate benchmark; for migration, where labor moves primarily across neighboring countries, the relevant comparison is regional. For this reason, relatively capital-abundant countries within the Global South can show patterns of anti-immigrant sentiment resembling those conventionally associated with advanced economies. Rather than treating South-South backlash as an exception to standard distributional theories, we show that it can follow from the same factor-endowment logic operating at a different geographic scale.

Second, we distinguish the distributional politics of trade from those of migration. Existing accounts often expect labor-abundant developing countries to favor openness along both dimensions. We instead show that the relevant endowment comparison can differ across flows, producing support for trade alongside opposition to immigration within the same country. This trade-migration divergence helps reconcile the generally favorable attitudes toward trade observed across much of the Global South with intense anti-immigrant politics in some of the same countries.

Third, our study separates distributional sources from symbolic sources of the globalization backlash. Our conjoint experiment independently varies the origin of migrants and the identity of trading partners, allowing us to compare how the same foreign country is evaluated across migration and trade. In South Africa, job insecurity amplifies opposition to

migration from Zimbabwe but not opposition to trade with Zimbabwe, whereas xenophobic attitudes are more closely associated with the latter. By holding the foreign counterpart constant across domains, the design shows that hostility toward a neighbor alone cannot account for these divergent patterns. Together, these results locate South-South migration backlash within the broader political economy of globalization, rather than treating it as a distinct form of cultural backlash.

2 A Regional Stolper-Samuelson Framework

The canonical Stolper-Samuelson (SS) theorem operates within a Heckscher-Ohlin (HO) framework. In its simplest two-factor, two-good form, countries differ in their relative endowments of capital (K) and labor (L). A country is capital-abundant if its ratio of capital to labor (K/L) exceeds the world average; it is labor-abundant if K/L falls below the world average. Trade liberalization causes each country to specialize in goods that use its abundant factor intensively. Through the Stolper-Samuelson mechanism, this specialization generates a real increase in the return to the abundant factor and a real decrease in the return to the scarce factor; not just in the specific sector that expands, but economy-wide.

The political economy implication, laid out by Rogowski (1987) and tested empirically by Scheve and Slaughter (2001) among others, is that factor owners rationally form trade preferences based on whether trade liberalization increases or decreases their real income or asset values. The owners of the abundant factor should support openness; owners of the scarce factor should oppose it, and political institutions mediate whose voice is heard (Rogowski, 1987). Applied globally, the stylized HOSS model predicts asset price equalization within regions, but not across them (Romalis, 2004), such that in capital-abundant advanced industrial nations, capital owners should support trade, and low-skilled workers oppose it. Conversely, in labor-abundant developing nations, low-skilled workers should support trade, whilst capital owners oppose it. This generates the familiar prediction that developing coun-

tries should show broad popular support for globalization. This is the stylized model that this paper seeks to complicate and explain where it fails.

The same logic for trade may extend to labor mobility across borders. If labor can move internationally, low-skilled workers in labor-abundant countries benefit from emigration, while low-skilled workers in capital-abundant countries are harmed by in-migration of those low-skill workers, as they increase competition for jobs. Capital owners in receiving countries, however, benefit from in-migration through downward pressure on wages. We revise this global formulation and the predictions that follow from it by more precisely defining the relative factor abundance from global to regional, specifically as it applies to labor. As scholars have found in the economics literature (Fan, 2019, Oslington and Towers, 2010), the global endowment in labor is, *inter alia*, not necessarily the primary locus of reference for factor mobility. Accordingly, we draw on that literature to make the following argument and hypotheses that follow from it.

The standard framework defines abundance relative to a single global factor ratio. Let $\kappa_w = (K/L)_{\text{world}}$ denote the world capital-labor ratio. A country i is capital-abundant if:

$$\kappa_i = (K/L)_i > \kappa_w \tag{1}$$

and labor-abundant if $\kappa_i < \kappa_w$.

This binary classification places all developing countries on the same side of the global distribution and predicts that they will share similar preferences toward both trade and migration openness. The empirical prediction is treated as roughly uniform across the developing world.

The problem that we address is that this single reference point aggregates away heterogeneity that is economically and politically important. A country like South Africa, with $\kappa_{SA} < \kappa_w$ (labor-abundant relative to the world), is classified identically to Zimbabwe, with $\kappa_{ZIM} \ll \kappa_w$ (far more labor-abundant). However, the economically relevant competition

facing South African low-skilled workers does not come from German or American workers, but rather from Zimbabwean workers who cross the Limpopo River and compete for jobs. The global framework, by design, cannot capture this.

3 The Regional Modification

The core modification we adopt is to replace the single global reference point with a *regionally* defined reference point that reflects the actual competitive environment facing workers and firms in a given country. This has been examined *within* countries in the economics literature (Brühlhart, 2011, Krugman, 1991, Rotemberg and Saloner, 2000), but less so in the political science research on globalization attitudes.

This regional model would define a region R as the set of countries that are economically proximate to country i sharing borders, participating in common labor markets, linked by migration corridors, and trading with each other. For the Southern African case, R includes South Africa, Zimbabwe, Mozambique, Malawi, Zambia, and other Southern African Development Community (SADC) members.

Define the regional capital-labor ratio as:

$$\kappa_R = \frac{\sum_{j \in R} K_j}{\sum_{j \in R} L_j} \quad (2)$$

Now define *regional abundance* for country i :

- Country i is regionally capital-abundant if $\kappa_i > \kappa_R$
- Country i is regionally labor-abundant if $\kappa_i < \kappa_R$

These classifications thus diverge from the global abundance model, and this divergence

is the theoretically important difference that we present. South Africa thus satisfies:

$$\kappa_{ZIM} < \kappa_R < \kappa_{SA} < \kappa_w \quad (3)$$

That is, South Africa is labor-abundant *globally*, but capital-abundant *regionally*. Zimbabwe is labor-abundant by both measures, but more so regionally than globally since it falls well below κ_R .

3.1 Predictions Under the Regional Framework

With this modification, the Stolper-Samuelson logic generates distinct predictions depending on which reference point, global or regional, is operative for a given type of economic integration. Our first theoretical claim is that the relevant reference point depends on the geographic scope of the economic integration in question. Global trade flows may be generally evaluated against global factor ratios, particularly for raw materials and commodities. However, we argue that migration flows, which are strongly distance-dependent and concentrated within regions, are better evaluated against *regional* factor ratios. This assumption follows from the observation that labor markets are far more locally segmented than goods markets. What is crucial here to distinguish labor preferences from trade is thus the distance-weighted effective endowment, rather than the global relative endowment of labor, which is crucial for the domestic politics of globalization. Our second theoretical claim is that economic insecurity is the mechanism driving opposition to in-migration, which we develop in the next section.

3.1.1 Economic Insecurity and the Globalization Backlash

The regional model predicts *which* countries should display opposition to regional migration based on factor endowments. We now turn to the question of *who within these countries* should be most opposed, and through what attitudinal mechanisms insecurity translates into

policy preferences.

We expect that economic insecurity is a key variable explaining why and when citizens in developing countries will oppose in-migration. There is a rich body of research that demonstrates the link between insecurity and authoritarian values, including xenophobia and nationalism, both in terms of physical insecurity and economic insecurity. Going back to Lipset (1959)’s conceptualization of working-class authoritarianism, scholars have understood the unique impact of economic and psychological insecurity, as distinct from income poverty, on political attitudes and behavior (Feldman and Stenner, 1997, Inglehart and Norris, 2017, Mutz, 2018), including cultural and status threats from immigration and trade integration (Norris and Inglehart, 2019) in advanced nations. In this research, more insecure citizens are more inclined toward authoritarian values, including xenophobia, on account of status threat (Mutz, 2018) and economic threat (Ballard-Rosa, Jensen and Scheve, 2022, Ballard-Rosa et al., 2021).

We measure economic insecurity with two measures, each of which may activate different psychological pathways to anti-immigrant sentiment. The first is prospective labor market vulnerability, measured by the question: “If you were to lose your job, how likely would it be for you to find a new job?” This measure captures anticipatory anxiety about one’s position in the labor market—the perceived risk of downward mobility. It is conceptually closest to the Stolper-Samuelson mechanism: workers who perceive themselves as substitutable by migrants, i.e., those who believe they could not easily find replacement employment, should feel the competitive pressure of in-migration most acutely. This measure also taps into what Mutz (2018) identifies as *status threat*: the fear of losing one’s relative standing, rather than absolute deprivation.

We do think that absolute deprivation matters, however, as it affords resources with which to buffer citizens from economic risk. This is best captured by the Lived Poverty Index (LPI), which measures how frequently individuals go without basic necessities such as food, clean water, medical care, cooking fuel, and cash income. LPI reflects chronic

deprivation, and hence the lack of assets with which workers can buffer themselves from economic shocks.³

Our pre-analysis plan predicted that “individuals experiencing economic insecurity in South Africa are likely to oppose in-migration” and that “heightened insecurity in South Africa will correlate with stronger authoritarian tendencies, including xenophobia, nationalism, and decreased support for democracy.” We thus treat authoritarian attitudes, *viz.* xenophobia and nationalism as *mechanisms* through which insecurity shapes migration preferences. Specifically, we expect that prospective labor market vulnerability (the job insecurity measure) should most strongly predict xenophobic attitudes and opposition to in-migration, because it captures the status-threat channel more directly. The Lived Poverty Index may also predict xenophobia in South Africa, where material deprivation and labor market competition from migrants co-occur, but its relationship to broader authoritarian dispositions is theoretically ambiguous: chronic deprivation may generate pragmatic orientations focused on material improvement rather than ideological commitments to authoritarian governance. In Zimbabwe, where emigration opportunities blunt prospective insecurity, the Lived Poverty Index may predict xenophobia toward even poorer migrants (Malawian, Mozambican) through a chronic-deprivation channel, consistent with the regional logic of our theory.

For nationalism, we expect insecurity to activate a heightened sense of national identity, or what Kersting (2009) calls “new nationalism.” This differs from earlier forms of nationalism that took the form of anti-colonial protest. The “new” nationalism is more closely linked to globalization and high levels of migration (Mutanda, 2022). To the extent that citizenship delimits access to state resources, an emphasis on national identity should be strongly felt among the poorest, most insecure citizens (Mutanda, 2022). The cross-country direction

³Consistent with this research, we pre-registered the expectation that insecurity is associated with authoritarian values. We test that expectation in the Appendix C.5. We also demonstrate that it is the economic consequences of insecurity, rather than the authoritarian attitudes with which it may be associated, that drive the divergence between trade and migration attitudes.

of this effect may depend on structural position: in labor-importing countries like South Africa, insecurity may activate nationalism as a claim on state protection. In labor-exporting countries like Zimbabwe, the same insecurity may also activate nationalism, but through different pathways given the country’s different position in the regional economic hierarchy.

Crucially, we do not expect economic insecurity to generate a backlash against trade, particularly exports. As the Heckscher-Ohlin and Stolper-Samuelson models predict and empirical research confirms, workers in the global South have generally benefited from trade liberalization, both as consumers (Baker, 2003) and producers (Horner and Nadvi, 2018). Moreover, with a deeper and broader integration of global value and production chains, the geography of global trade in the 21st century has included a significant increase in South-South trade (Casella et al., 2019). Thus, we expect that insecurity will have little effect on the expression of opposition to trade integration in either country.

3.1.2 Trade Preferences and Global Abundance

For trade in goods, we expect that the global reference point remains most relevant one because goods markets are, with important exceptions for agglomeration and regional specialization, globally integrated. Because South Africa and Zimbabwe are both labor-abundant relative to the world economy, workers in each country stand to gain from trade that rewards abundant labor. Neither country’s low-skilled workers should, therefore, strongly oppose trade liberalization in goods, whose price should fall with trade openness, while exports of products manufactured with low-skilled labor should increase returns to the abundant factor (Mayda and Rodrik, 2005, Scheve and Slaughter, 2001). We therefore expect broadly similar trade preferences across the two countries, with neither exhibiting strong opposition to trade liberalization.⁴ The cross-country similarity expected on trade attitudes is the natural counterpart to the divergence we will predict on migration: where the reference point is global,

⁴This prediction concerns the *direction* of trade preferences, for which the global and regional reference points yield the same expectation. It does not, however, predict preferences over specific trading partners. Whether respondents distinguish between regional neighbors and more distant countries as trading partners therefore falls outside the predictions of the factor-endowments framework at either scale.

the two countries may look more alike. Where the reference point is regional, they should diverge.

Hypothesis 1 (Trade Openness): *Citizens in both South Africa and Zimbabwe favor policies that expand exports over policies that increase imports, and neither country exhibits strong opposition to trade liberalization.*

3.1.3 Migration Preferences Follow Regional Abundance

For labor migration, we argue that the regional reference point is the relevant one. As mentioned, South Africa is *regionally* capital-abundant relative to Zimbabwe and its other SADC neighbors, putting its lower-skilled citizens in a position analogous to that of an advanced industrial economy facing a developing-country sending population. South Africa's low-skilled workers therefore face real job competition from Zimbabwean migrants.

Applied at the regional level, the Stolper-Samuelson logic generates asymmetric predictions across the two countries. South African low-skilled workers should *oppose* in-migration of low-skilled labor from regional neighbors, just as American workers may oppose in-migration from Latin America. South African capital owners and high-skilled workers, by contrast, should be relatively more favorable to in-migration, since migrant labor reduces their wage costs or complements their skills. Zimbabwean workers, regionally labor-abundant, thus should *support* emigration, which raises their domestic scarcity, and they also should be relatively indifferent to in-migration. This cross-national asymmetry is the central empirical implication of our framework: whereas global factor-abundance accounts treat the two countries as theoretically equivalent, our regional extension predicts that they diverge on migration most starkly.

Hypothesis 2 (Migration Asymmetry): *South African citizens, especially the most vulnerable, should oppose in-migration from their regional neighbor (Zimbabwe), particularly low-skilled migration. Zimbabweans should not reciprocally penalize in-migration from South Africa, and Zimbabweans should strongly support emigration to South Africa.*

3.1.4 The Trade-Migration Asymmetry

This prediction distinguishes the regional framework it from both the global SS model and from purely cultural/ xenophobic explanations. This is the *simultaneous* occurrence of trade support and migration opposition *directed specifically at regional neighbors*. A pure xenophobia account would predict opposition to both trade and migration from neighboring countries, with little relevance of insecurity. A global SS account would predict support for both. Only the regional SS account predicts the specific pattern of favoring trade openness (consistent with global labor abundance) while opposing low-skilled in-migration from neighbors, particularly among the more insecure low-skill workers competing with those migrants. Formally:

- T_{ij} = respondent i 's support for trade with country j
- M_{ij} = respondent i 's support for migration from country j

The three competing models generate the following predictions:

$$\text{Global SS: } T_{ij} > 0 \text{ and } M_{ij} > 0 \quad \forall j, \text{ when } \kappa_i < \kappa_w \quad (4)$$

$$\text{Xenophobia: } T_{ij} < 0 \text{ and } M_{ij} < 0 \quad \text{when } j \text{ is a stigmatized out-group} \quad (5)$$

$$\text{Regional SS: } T_{ij} > 0 \text{ and } M_{ij} < 0 \quad \text{when } j \text{ is a labor-abundant regional neighbor} \quad (6)$$

We can test this asymmetry in the conjoint experiment, which varies trade and migration attributes independently, allowing us to identify the divergence *within the same respondent* holding constant individual-level dispositions that would generate across-the-board hostility or enthusiasm toward a given country.

Hypothesis 3 (Trade–Migration Asymmetry): *Within South Africa, respondents oppose migration from Zimbabwe at higher rates than they oppose trade with Zimbabwe. This within-respondent divergence rules out both global SS (which predicts support on both dimensions) and xenophobia (which predicts opposition on both).*

3.1.5 The Insecurity and Exposure to Regional Migration

Within South Africa, low-skilled workers who are most directly exposed to labor market competition from regional migrants, specifically those South Africans with less education, less stable employment, and fewer resources with which to buffer themselves from income shocks, should display the strongest opposition to regional in-migration. This is because the SS logic operates through *real factor returns*: workers whose wages are most directly competed down by migrants have the most to lose. Economic insecurity, in this context, is exacerbated by exposure to migrant labor market competition, generating opposition to in-migration.

Formally, let w_i denote the real wage of worker i and let M denote the volume of low-skilled regional in-migration. SS predicts:

$$\frac{\partial w_i}{\partial M} < 0 \quad \text{for low-skilled workers} \quad (7)$$

More insecure workers, i.e., those with lower skills, weaker labor market positions, and less access to social protection, should face a more negative $\frac{\partial w_i}{\partial M}$ because they have narrower margins for adjustment. Their opposition to in-migration should be correspondingly more intense with higher economic insecurity. Empirically, this implies heterogeneous treatment effects among respondents, with high-insecurity South African respondents reacting more negatively to Zimbabwean in-migration than low-insecurity respondents do.

Hypothesis 4 (Insecurity): *Economic insecurity predicts greater opposition to low-skilled regional in-migration in South Africa, where labor market competition from regional migrants is higher. In Zimbabwe, where workers are net beneficiaries of emigration opportunities, the insecurity-migration opposition link should be weak or absent.*

3.1.6 Skill Moderates Migration Opposition

The regional SS logic applies most effectively to *low-skilled* labor, where substitutability between native and migrant workers is highest, and competition is therefore the greatest

due to abundance in both countries. High-skilled migration presents a different calculus: if high-skilled migrants are complements to native workers rather than substitutes, by filling roles that expand economic activity rather than competing for existing jobs, then even regionally capital-abundant countries should be relatively open to high-skilled in-migration. The critical implication is that skill acts as a scope condition on the regional framework; the cross-national asymmetry from Hypothesis 2 should attenuate for skilled migration and sharpen for unskilled migration.

Hypothesis 5 (Skill Moderation): *Both South Africans and Zimbabweans should prefer high-skilled over low-skilled immigrants, regardless of country of origin. The preference gap between high- and low-skilled immigrants should be larger in South Africa (regionally capital-abundant) than in Zimbabwe (regionally labor-abundant), because South African low-skilled workers face more direct substitution and thus competition pressures.*

Table 1 summarizes the comparative hypotheses of the regional framework across the two cases.⁵

4 Data and Methods

We test our theory with two complementary empirical strategies: a cross-national analysis from Afrobarometer Rounds 6–10 (2016–2025) and a pre-registered conjoint survey experiment conducted in South Africa and Zimbabwe in 2024. Each addresses a distinct component of the argument.

The cross-national analysis examines whether the regional factor endowments of 39 African countries predict attitudes toward globalization. Specifically, it tests whether countries that are relatively capital-abundant within their regional economies show greater hos-

⁵Three of these hypotheses (H1, H2, H3) were pre-registered as part of our conjoint design. H2 (Migration Asymmetry) has been extended to emphasize the cross-national asymmetry as a central expectation. H4 (Insecurity Gradient) was pre-registered in its core form but has been reframed to treat xenophobia as a mechanism rather than a standalone outcome. H5 (Skill Moderation), concerning Zimbabwe’s own opposition to in-migration from its poorer neighbors, represents a theoretical extension developed after observing patterns consistent with a recursive application of our regional framework.

Table 1: Predicted Attitudes Under the Regional Stolper-Samuelson Framework

Domain	Reference Point	South Africa	Zimbabwe
Trade openness	Global	Support	Support
Export vs. Import	Global + industrial structure	Favor exports	Favor exports
High-skilled in-migration	Global + complementarity	Support	Support
Low-skilled in-migration from region	Regional	Oppose	Moderate opposition
Emigration to richer countries	Regional + global	Support	Strong support
Insecurity effect on migration opposition	Regional labor market exposure	Strong negative gradient	Weak or absent gradient

tility toward immigration. This analysis allows us to assess whether the implications of our theory extend beyond South Africa and Zimbabwe to the broader African context. Yet, this analysis cannot identify the individual-level mechanisms underlying the observed relationship.

The conjoint experiment provides a complementary individual-level mechanism test. By independently varying migrant origin, migrant skill, and trade partner, the design isolates how respondents react to the same neighboring country across migration and trade while holding other attributes constant. Because we also measure respondents' economic insecurity and symbolic attitudes, we can assess whether these policy preferences vary systematically with material vulnerability or with xenophobia and national identity. This moderation structure allows us to distinguish the distributional mechanism proposed by our framework from an alternative account based primarily on out-group animus.

4.1 Case Selection

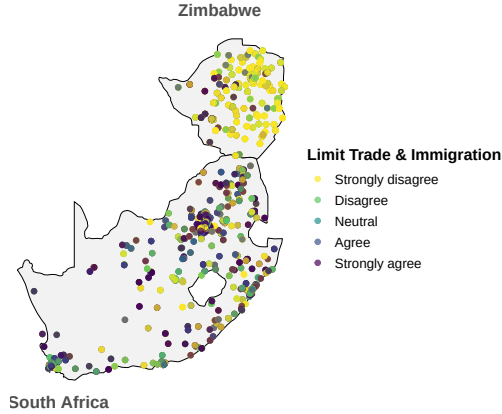
Within Sub-Saharan Africa, South Africa is relatively abundant in capital and is a net importer of labor, while Zimbabwe is a net exporter of labor to South Africa and an importer of manufactured goods from its neighbor. Consistent with our pre-registered expectations, we anticipate that citizens in both countries will favor exports over imports, but that South Africans, regionally capital-abundant, will display stronger opposition to low-skilled in-migration from Zimbabwe, especially among economically insecure respondents. For Zimbabweans, we expect broad support for emigration and greater openness to trade and migration overall.

Figure 2 reveals important cross-country differences using Afrobarometer data. We note that this first measure (left panel) lumps together trade and migration preferences for openness. We see that South Africans are more likely than Zimbabweans to endorse limiting openness, a pattern likely driven by stronger anti-immigration sentiment in South Africa. The right panel isolates trade protectionism by asking whether the country should rely on local production and shield domestic producers from foreign competition. Here, too, South Africans show somewhat higher agreement with protectionism than Zimbabweans, although disagreement with protection remains the modal response in both countries. These patterns are consistent with our theoretical expectation that middle-income economies, such as South Africa, with more developed industrial sectors and have more potential for protectionist sentiment, whereas Zimbabwe’s economic conditions make reliance on local production far less credible, and hence greater support for trade openness.⁶

Afrobarometer data further justify our case selection. As Figure 3 shows, South Africans who consider emigrating disproportionately name North America and Europe as destinations, while Zimbabweans overwhelmingly name South Africa. These stated preferences track actual flows: Zimbabwe is the largest source of African migrants to South Africa, with estimates ranging from one to three million (Crush and Chikanda, 2018, Crush and Tevera,

⁶Figure A.3 presents attitudes toward immigrants and immigration policy across the countries.

(a) Attitudes Toward Trade and Immigration



(b) Attitudes Toward Trade Policy

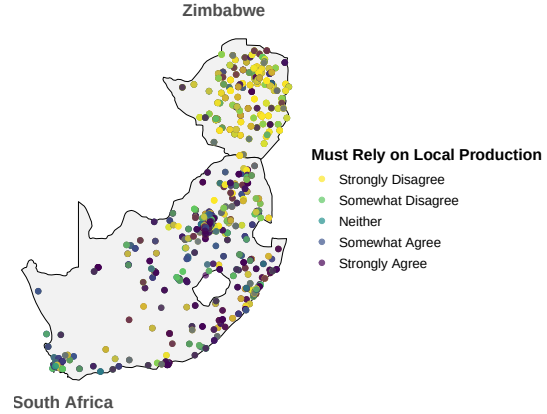


Figure 2: Globalization Backlash in South Africa and Zimbabwe

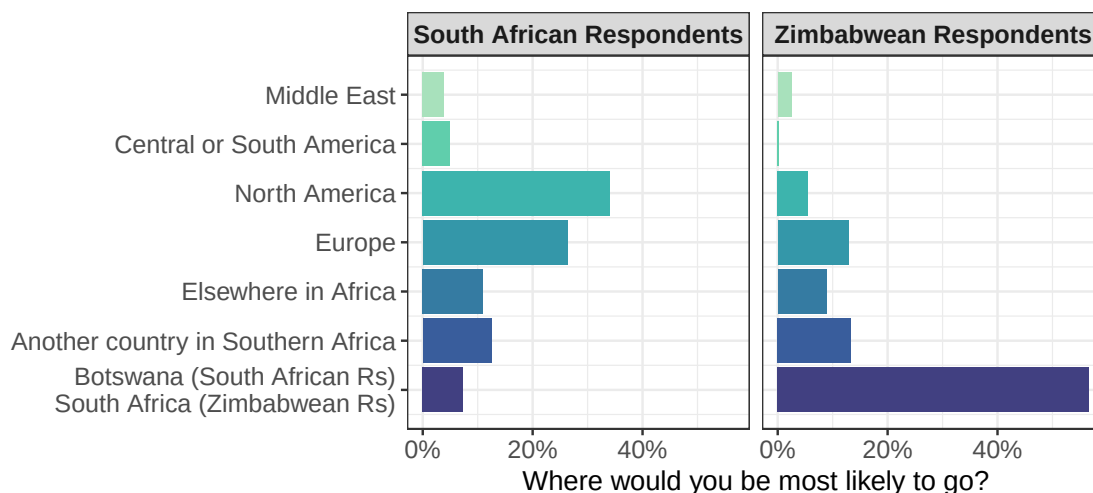
Note: The figure presents data from Afrobarometer Round 8 (2022). As in Figure 1, attitudes toward trade and immigration are assessed; however, Round 8 includes only a question on trade. Respondents were asked to choose between the following two statements. Statement 1: In order to develop, our country must rely on trade with the rest of the world, including by opening our borders to foreign imports. Statement 2: In order to develop, our country must rely on local production and protect local producers from foreign competition. Respondents who agreed with Statement 2 are considered to express stronger protectionist or anti-globalization attitudes.

2010).⁷ Appendix Figure A.2 demonstrates that Zimbabweans consider leaving primarily for economic reasons like finding work, escaping economic hardship, and alleviating poverty, rather than for family, educational, or medical reasons.

Although South Africa is far from the only locus of xenophobic violence in Sub-Saharan Africa (Akinola, 2019), the country garnered worldwide attention for two waves of large-scale xenophobic violence in 2008 and 2015, which continues today. Indeed, the dynamics we analyze here erupted into open violence once again this year. Beginning in April 2026, a citizen movement calling itself *March and March* mounted weekly anti-immigrant marches across Pretoria, Johannesburg, and Durban and issued an ultimatum for undocumented migrants to leave by 30 June; vigilante attacks documented by Human Rights Watch drove thousands of foreign nationals from their homes and workplaces (Human Rights Watch, 2026).

⁷According to Statistics South Africa (Statistics South Africa, 2023), approximately 2.4 million foreign-born individuals reside in South Africa (3.9% of the population), with the majority originating from SADC countries. Migrants from Zimbabwe constitute the largest group, accounting for roughly 1 million people, or about 45% of the foreign-born population.

Figure 3: Preferences Toward Emigration Destinations in South Africa and Zimbabwe



Note: Data from Afrobarometer Round 7 (2018). Respondents were asked: “If you were to move to another country, where would you be most likely to go?” The plot shows that while South Africans disproportionately prefer North America or Europe as emigration destinations, Zimbabweans are more likely to choose South Africa. This contrast suggests that, despite both being classified as developing countries in standard economic models, these neighboring countries exhibit distinct attitudes toward globalization.

The regional signature of the crisis was clear, as the governments of Mozambique, Malawi, Ghana, and Nigeria organized buses and chartered flights to repatriate their citizens (Al Jazeera, 2026, Daily Maverick, 2026*b*), while South Africa’s own response, including President Ramaphosa’s June 2026 address promising specialized immigration courts, thousands of new labor inspectors, and statutory quotas on foreign workers (Daily Maverick, 2026*a*), was cast explicitly as protecting citizens from labor-market competition. That the backlash concentrated in the region’s capital-abundant hub, targeted migrants from its poorer neighbors, and produced a labor-market-protectionist policy answer is precisely the pattern our framework predicts. It is also what we see below: our survey experiment data, collected before these events, had registered as latent attitudes. Such antipathy toward African immigrants is not limited to these episodes, however; it is endemic to everyday life for migrants in South Africa (Dodson, 2010), particularly for Zimbabweans, who constitute one of the largest migrant populations in the country (Crush et al., 2018). The paired case design: one regionally capital-abundant receiving country and one regionally labor-abundant send-

ing country, linked by the most significant migration corridor in Southern Africa allows us to test not only the regional Stolper-Samuelson framework against the natural counterfactual that global factor endowment models would treat these countries as theoretically equivalent. It also allows us to seek a systematic understanding of these real-world, ongoing events.

4.2 Cross-Sectional Analysis

We begin with a cross-national analysis across Africa before turning to the conjoint experiment in South Africa and Zimbabwe. The analysis covers up to 39 African countries, depending on the year⁸ across five Afrobarometer rounds (R6-R10; 2016–2025). We first examine whether countries that are more capital-abundant relative to their regional economies exhibit greater anti-immigrant hostility, and whether this relationship persists after accounting for migrant stocks and national income. We then turn to the conjoint experiment, which allows us to vary migrants’ country of origin, skill level, and trade-partner attributes, to examine the individual-level patterns underlying this cross-national relationship.

Capital intensity We measure capital intensity as capital stock per worker using data from the Penn World Table:

$$\omega_i = \frac{cn_i}{emp_i}, \quad (8)$$

where cn_i denotes capital stock at current purchasing power parities (millions of 2017 US\$) and emp_i denotes the number of respondents engaged (millions). The resulting measure is expressed in 2017 US\$ PPP per worker.⁹ Capital intensity varies by nearly two orders of magnitude across the countries in our sample, ranging from approximately \$3,100 per worker in Malawi to \$187,000 in Botswana; South Africa lies near the upper end of this distribution

⁸Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Congo-Brazzaville, Côte d’Ivoire, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, São Tomé & Príncipe, Senegal, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

⁹We use values from 2017, substituting observations from 2016 or 2019 when 2017 data are unavailable.

at \$152,500 and Zimbabwe \$10,200.

Regional factor abundance Our argument rests on a *regional* benchmark that captures the factor endowments of geographically proximate economies. We operationalize this relationship using a distance-weighted measure of relative capital intensity. Let d_{ij} denote the great-circle distance between the capital cities of countries i and j , calculated using the haversine formula. We assign each country pair an exponential-decay weight:

$$w_{ij} = \exp\left(-\frac{d_{ij}}{d_0}\right), \quad w_{ii} = 0, \quad (9)$$

where the bandwidth d_0 determines how quickly the weight assigned to neighboring economies declines with geographic distance. We then define regional factor abundance as the difference between a country's own log capital intensity and the distance-weighted average log capital intensity of all other countries:

$$\text{abund}_i = \log \omega_i - \frac{\sum_{j \neq i} w_{ij} \log \omega_j}{\sum_{j \neq i} w_{ij}}. \quad (10)$$

Positive values indicate that a country is capital-abundant relative to its regional environment, whereas negative values indicate relative labor abundance. We standardize abund_i across countries and set $d_0 = 1,500$ km in the baseline specification.

Equation (10) can thus be understood as a spatial-lag deviation: a country's factor intensity relative to the distance-weighted factor intensity of surrounding economies. This formulation builds on the insight that geography conditions the economic relevance of relative factor endowments. Romalis (2004), for example, shows that transport costs interact with factor proportions to shape patterns of commodity trade, such that comparative advantage depends not only on a country's own endowments but also on its geographic position relative to trading partners. We extend this logic to migration, where geographic frictions are substantially greater: goods cross the Limpopo River far more easily than workers do.

If distance conditions the relevant comparison even for tradable goods, it should matter at least as much for labor mobility. Yet globalization research typically evaluates countries’ factor endowments against a global, rather than regional benchmark.

Dependent Variable Our outcome is anti-immigrant hostility, measured consistently across Afrobarometer rounds using the neighbor-preference item. Respondents are asked how much they would like or dislike having “immigrants or foreign workers” as neighbors, with responses ranging from 1 (strongly like) to 5 (strongly dislike). We code higher values as greater anti-immigrant hostility and aggregate individual responses to the country level.

Controls We include two key controls. *Receiver status*, measured as the international migrant stock as a share of the population (World Bank), accounts for the possibility that anti-immigrant hostility reflects the scale and political salience of immigration rather than relative factor endowments. *Absolute income*, measured as log GDP per capita at PPP (constant 2017 international dollars), distinguishes a country’s regional relative position from its overall level of wealth. Both measures are standardized. Appendix Table D.1 reports summary statistics for the regression samples.

Estimation We estimate the effects of regional factor abundance on anti-immigrant attitudes separately by survey round, and in a pooled sample:

$$\text{Host}_{ir} = \alpha + \beta \text{Aund}_i + \gamma \text{Recv}_i + \delta \text{Inc}_i + \tau_r + \rho_{g(i)} + \varepsilon_{ir}, \quad (11)$$

where Host_{ir} denotes anti-immigrant hostility in country i and survey round r , Aund_i measures regional factor abundance, Recv_i captures migrant-receiving status, and Inc_i denotes national income. The pooled specification includes survey-round fixed effects τ_r and subcontinental region fixed effects $\rho_{g(i)}$ for North, West, Central, East, and Southern Africa, with standard errors clustered by country. We additionally estimate round-specific models with robust standard errors and pooled specifications without region fixed effects.

4.3 Conjoint Experiment

We pre-registered a conjoint survey experiment in South Africa and Zimbabwe that asks respondents to evaluate two alternative policy scenarios. Conjoint experiments are suitable for examining what attributes of products, policies, or projects shape citizen preferences. They are thus especially suitable for settings where people face trade-offs between multiple aspects of policies that could pull them in different directions, such as competition for jobs, lower-priced goods, and economic growth.

We collected data through survey experiments conducted in South Africa and Zimbabwe through *Pure Spectrum* in September-December 2024. Our conjoint study in South Africa involved 1,543 respondents, each completing 5 tasks with 2 profiles per task, resulting in a total of 15,430 profiles ($1,543 \times 5 \times 2$). Similarly, in Zimbabwe, we conducted a conjoint experiment with 2,077 respondents, generating 20,770 profiles ($2,077 \times 5 \times 2$). Except for some country-specific variables such as party identification, respondents in both countries received identical questions.

We gathered demographic information including gender, ethnicity, education level, age, marital status, employment status, occupation, job insecurity, lived poverty index (LPI), and residency (rural or urban). For party identification, South African respondents were asked to choose between the ANC, Democratic Alliance, EFF, IFP, MK, and FF Plus, while Zimbabwean respondents were asked to identify with either ZANU-PF, MDC, or CCC.

Economic insecurity and deprivation are measured using two variables: (1) Job Insecurity and (2) the Lived Poverty Index (LPI). The first measure is based on the question: “If you were to lose your job, how likely would it be for you to find a new job?” This captures respondents’ perceived vulnerability in the labor market. The second measure, the LPI, consists of five items from Afrobarometer. Unlike attitudinal or income-based indicators, the LPI is an experiential measure that captures how frequently individuals go without basic necessities such as food, clean water, medical care, cooking fuel, and cash income.¹⁰

¹⁰<https://www.afrobarometer.org/wp-content/uploads/2022/12/PP84-PAP19-Lived-poverty-r>

We constructed an index based on these five items to assess levels of economic insecurity in both countries.

Second, as Table 2 shows, each respondent received five tasks, which are side-by-side tables of policies with different features: Migration from (United States, Europe, [Zimbabwe/South Africa]), Migration to (same), Migrants come with (high skill, low skill); trade partners (North America, Europe, China, [Zimbabwe/South Africa]); trade in order to (export more products, import more foreign products). After each task, respondents are asked which policy set they prefer and how strong their support is for each project.

Attribute	Levels
Open migration from	Zimbabwe/South Africa; Europe; North America
Migrant skill level	High skill; Low skill
Open migration to	Zimbabwe/South Africa; Europe; North America
Free trade with	Zimbabwe/South Africa; Europe; North America; China
Free trade to	Import more foreign products; Export more domestic products

Table 2: Conjoint Profiles (South Africa/Zimbabwe)

Third, we explore the mechanisms behind these policy attitudes toward globalization. We do so by examining how economic insecurity affects authoritarian attitudes, and hence the backlash toward migration in both countries. We analyze the relationship between insecurity and backlash with two mechanism variables: *Xenophobia* and *Nationalism*. *Xenophobia* is measured using an index composed of responses to the following two statements: “Foreigners take jobs away from South Africans,” and “Foreigners receive more benefits from South Africa than they contribute.” Higher scores reflect stronger xenophobic attitudes. We measure *Nationalism* using a three-item index administered in parallel form in both countries: “How important is being South African / Zimbabwean to your identity?”, “To what extent do you feel that South Africans / Zimbabweans in this country have a lot to be proud of?”, “When someone says something bad about South African / Zimbabwean people, I feel as if they

esurgent-Afrobarometer-Pan-Africa-Profile-30dec22.pdf Accessed: 05/23/2025.

said something bad about me.”¹¹

Lastly, we asked two questions regarding globalization to measure the dependent variable: (1) “To what extent do you think South Africa/Zimbabwe should reduce trade barriers and allow the freer movement of products across borders?” and (2) “To what extent do you agree that people should be allowed to migrate freely across national borders?” Each question is assessed using a 5-point Likert scale.

We estimate Average Marginal Component-specific Effects (AMCEs) for our main effects (Hainmueller, Hopkins and Yamamoto, 2014) and marginal means for the subgroup analyses. Marginal means are less sensitive to the choice of a baseline category and are thus recommended for subgroup analysis (Leeper, Hobolt and Tilley, 2020), although our main results also hold when estimating conditional AMCEs. Appendix C.1 reports detailed information about the conjoint design.

5 Empirical Evidence

5.1 Cross-Sectional Analysis on Regional Factor Abundance

Table 3 reports results from four specifications. Columns 1–2 pool the five Afrobarometer rounds (R6–10; 2016–2025), include survey-round fixed effects, and cluster standard errors by country. Columns 3–4 collapse the data to the country level by averaging the outcome across survey rounds and report HC1 robust standard errors. In both samples, our preferred specification additionally includes sub-continental region fixed effects.

Across all four specifications, greater regional labor abundance is associated with higher levels of anti-immigrant hostility. The estimated coefficient remains statistically significant after accounting for migrant-receiving status, national income, and broad regional differences. Moreover, the estimated relationship becomes stronger when sub-continental region fixed

¹¹The index is internally consistent in both samples: Cronbach’s $\alpha = 0.70$ in South Africa (mean = 4.07, SD = 0.86) and $\alpha = 0.70$ in Zimbabwe (mean = 3.90, SD = 0.93).

Table 3: Regional Factor Abundance and Anti-immigrant Attitudes (Afrobarometer R6-10)

	Pooled Samples		Cross-Section	
	(1)	(2)	(3)	(4)
Regional K/L Abundance	0.270* (0.108)	0.294*** (0.086)	0.317* (0.121)	0.352** (0.118)
Receiver Status (Migrant Stock)	-0.118** (0.039)	-0.034 (0.026)	-0.125** (0.040)	-0.047 (0.029)
Absolute Income (log GDP p.c.)	0.029 (0.114)	-0.104 (0.092)	-0.015 (0.122)	-0.132 (0.113)
Survey Round Fixed Effects	Yes	Yes	—	—
Region Fixed Effects	No	Yes	No	Yes
Standard Errors	Clustered	Clustered	Robust	Robust
N	166	166	39	39
R^2	0.409	0.682	0.451	0.705

Note: The outcome is country-mean anti-immigrant hostility on a five-point scale, with higher values denoting greater hostility. All independent variables are standardized. Regional abundance is computed from Equation 10 with $d_0 = 1,500$ km. Region fixed effects are subcontinental (North, West, Central, East, Southern Africa). Because regional abundance is time-invariant, country fixed effects are not identifiable. * $p < .05$; ** $p < .01$; *** $p < .001$.

effects are included.

Two additional findings provide further support for our theoretical argument. First, absolute income is consistently unrelated to anti-immigrant hostility. This suggests that immigration preferences are better explained by relative factor abundance than by national wealth. Second, migrant-receiving status is negatively associated with anti-immigrant hostility only when sub-continental region fixed effects are excluded. Thus, the apparent relationship between migrant stocks and immigration attitudes appears to be driven largely by differences across regions rather than by differences among countries within the same region.

12

¹²Appendix Table D.2 further shows receiver status only models. The results show that countries hosting larger migrant populations exhibit lower levels of anti-immigrant hostility. This finding supports our argument that pressures on immigration attitudes are driven by relative factor gaps rather than by migrant stocks themselves.

5.2 The Asymmetry

Next, our conjoint experiments test both our main argument and its underlying mechanism. First, our asymmetry hypotheses (H1, H2, and H3) predict that differences between South Africa and Zimbabwe should be concentrated on migration rather than trade. Second, our mechanism hypotheses (H4 and H5) predict that this migration asymmetry should be rooted in differences in economic exposure and relative factor abundance rather than in generalized or symbolic aversion to neighboring countries.

Figure 4 presents the estimated marginal means of the results in each country, respectively.¹³ We find significant asymmetries in trade and immigration attitudes between South Africa and Zimbabwe. A key distinction drives these patterns: although South Africa is *globally* labor-abundant, it is *regionally* capital- and skill-abundant relative to Zimbabwe. We organize our discussion around each theoretical prediction in the following section.

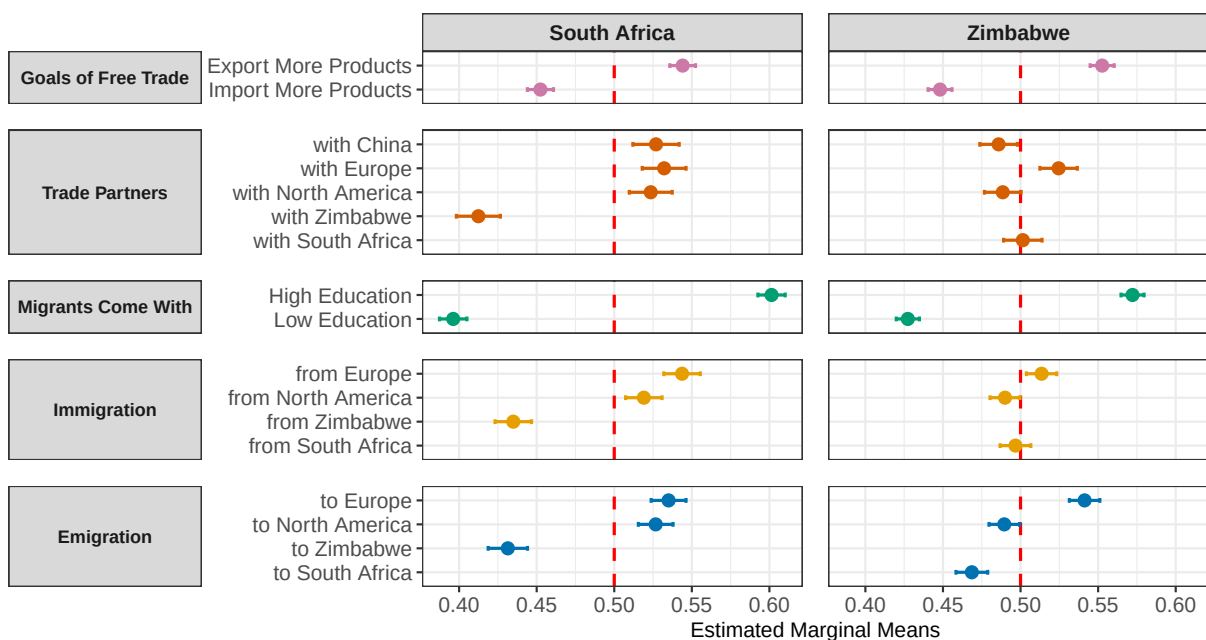


Figure 4: Marginal Means from Conjoint Experiments in South Africa and Zimbabwe

¹³The Average Marginal Component Effects (AMCEs) can be found in Appendix Figures C.1 and C.2. The marginal means displayed in Figure 4 are centered around 50% and do not rely on a reference category. In the case of two-level features, equal preference would produce values near 0.5, assuming no effect (see Tables C.2 and C.3 for descriptive statistics for South Africa and Zimbabwe, respectively.)

H1: Trade Follows Global Abundance

Citizens accurately comprehend the opportunities that trade openness affords their countries. Consistent with our first prediction, respondents in South Africa and Zimbabwe both significantly favor policies that expand export opportunities. This pattern aligns with Stolper-Samuelson logic: As globally labor-abundant economies, workers in both countries stand to benefit from trade liberalization, and neither country shows strong opposition to openness, particularly for exports. The absence of a sharp divergence between the two countries further supports our expectation that labor abundance, rather than country-specific factors, drives this shared preference for export-oriented trade.

The conjoint also supports H1’s second prediction, that trade preferences follow global rather than regional abundance. Table 4 shows significant overall support for openness to exports over imports ($\beta = -0.104, p < 0.001$), but the South Africa $\times$ Import interaction is small and statistically null. Both countries oppose imports to roughly the same degree, consistent with global labor abundance driving trade-direction preferences uniformly across developing-country contexts. This null interaction rules out the alternative that South Africa’s regional capital abundance extends to trade-direction preferences, and confirms that the regional mechanism operates specifically on migration flows.

Partner-specific patterns, however, reveal asymmetries. Figure 4 shows that Zimbabweans are receptive to trade partnerships with South Africa, whereas South Africans do not reciprocate this preference. Instead, South African respondents favor more diversified partnerships, e.g., with China, Europe, and North America, likely reflecting the country’s greater global integration and more complex economic interests. South Africans’ relative indifference toward Zimbabwe may reflect economic nationalism and concerns over labor and market competition, sentiments that have at times spilled over into xenophobic attitudes toward Zimbabwean migrants.

Table 4: Conjoint Attribute $\times$ Country Interactions

	Estimate
Neighbor immigration (from)	−0.003 (0.007)
Neighbor emigration (to)	−0.045*** (0.008)
Neighbor trade	0.001 (0.008)
Low-skilled migrant	−0.145*** (0.008)
Import products	−0.104*** (0.008)
South Africa	0.095*** (0.010)
SAF $\times$ Neighbor immigration (from)	−0.091*** (0.012)
SAF $\times$ Neighbor emigration (to)	−0.050*** (0.012)
SAF $\times$ Neighbor trade	−0.113*** (0.012)
SAF $\times$ Low-skilled migrant	−0.057*** (0.012)
SAF $\times$ Import products	0.014 (0.011)
N	36,200

Cluster-robust standard errors in parentheses, clustered by respondent. Reference category: Zimbabwe. “Neighbor” refers to Zimbabwe for South African respondents and South Africa for Zimbabwean respondents. * $p < .05$; ** $p < .01$; *** $p < .001$.

H2: Migration Preferences Track Regional Abundance

The third attribute reveals that respondents in both countries prefer high-skilled immigrant workers, consistent with a broader pattern in which skilled migrants are perceived as less threatening to local labor markets and more beneficial to economic growth. This skill preference interacts with regional dynamics. South Africans hold large and significant negative attitudes toward immigration from Zimbabwe ($\beta = -0.106$, $p < 0.001$), likely because Zimbabwean immigrants are perceived as low-skilled relative to the South African labor force. Zimbabwe, by contrast, shows no significant opposition to immigration from South Africa, consistent with the view that South African immigrants are seen as comparatively skilled.

Focusing on regional factor abundance clarifies this asymmetry, as South Africa’s relative capital and skill abundance generate opposition to low-skilled regional immigration, while simultaneously sustaining support for high-skilled immigrants and trade with advanced economies. The pooled interaction corroborates this interpretation. Table 4 shows that the South Africa neighbor opposition is significantly larger than Zimbabwe’s, confirming that the divergence is systematic. The South Africa $\times$ Neighbor Immigration shows that South Africans oppose immigration from their regional neighbor 9.1 percentage points more than Zimbabweans oppose immigration from theirs. More broadly, all neighbor-directed interactions are negative and statistically significant, confirming that South Africa’s opposition to engagement with its regional neighbor is systematically stronger than Zimbabwe’s across both migration and trade dimensions. The one notable exception is import preference. The South Africa $\times$ Import coefficient is small and statistically insignificant, consistent with our first prediction that preferences over trade direction follow global factor abundance rather than regional considerations.

H3: Trade-Migration Asymmetry

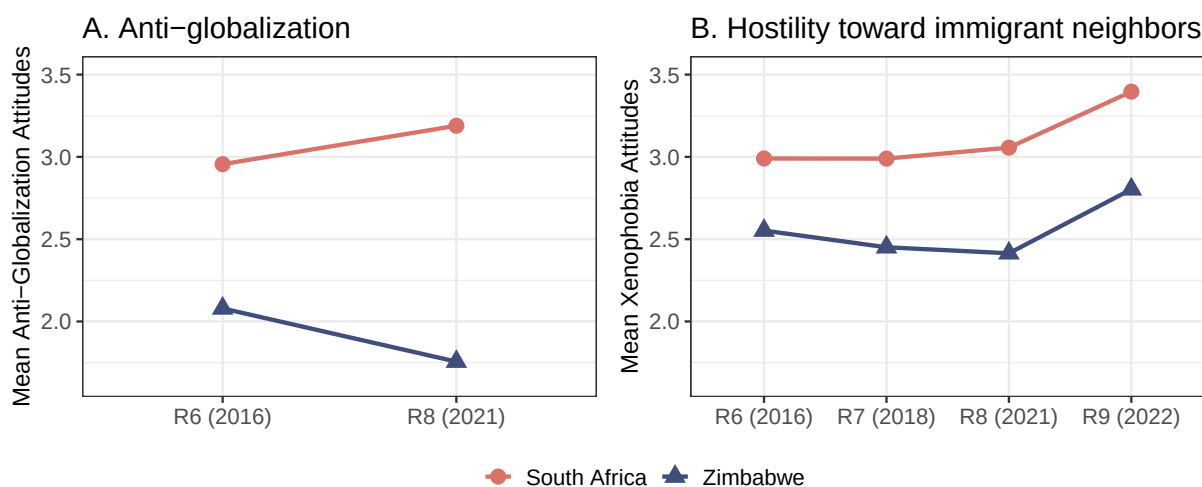
The most distinctive prediction of the regional Stolper-Samuelson framework is not simply that South Africans oppose migration more than they oppose trade, which could be produced by non-economic mechanisms such as xenophobia. Rather, the prediction is that the South Africa-Zimbabwe *gap* in opposition should be concentrated on migration, not on trade in goods. That is, relative to Zimbabweans evaluating the same attributes, South Africans should be more opposed to regional migration but should *not* hold a correspondingly larger aversion to imported goods. We test this by pooling the two conjoint samples and estimating models with country-by-attribute interactions (Table 4).

This hypothesis constitutes the most direct test of the regional framework. A pure xenophobia account would predict opposition to both trade and migration from Zimbabwe. A global Stolper-Samuelson theory would predict support for both. Only the regional frame-

work predicts the specific combination of trade openness and migration opposition directed at a regional neighbor.

We use Afrobarometer data to further corroborate the conjoint results. Figure 5 plots anti-globalization attitudes in both countries over this period. Panel A presents mean attitudes toward regional openness on a scale from 1 (strongly favor free cross-border movement of people and goods) to 5 (strongly favor restrictions).¹⁴ This question bundles trade and migration into a single globalization dimension—opposition reflects resistance to regional openness broadly, not immigration alone.

Figure 5: Opposition to Globalization in South Africa and Zimbabwe, 2016–2022



Note: Data from Afrobarometer Rounds 6 (2016), 7 (2018), 8 (2021), and 9 (2022). Panel A shows mean responses to the regional openness question bundling trade and migration openness. It asks respondents to choose between (1) “People living in Southern Africa should be able to move freely across international borders in order to trade or work in other countries” and (2) “In order to protect their own citizens, governments should limit the cross-border movement of people and goods.” Panel B isolates immigration-specific attitudes using the neighbor question, which asks whether respondents would like or dislike having “immigrants or foreign workers” as neighbors; responses are reverse-coded so that higher values indicate greater hostility toward immigrant neighbors.

In R6 (2016), South Africans scored 2.96 compared to Zimbabweans’ 2.08—a gap of 0.88 on

¹⁴The Afrobarometer asks respondents to choose between two statements about regional integration. In Round 8: (1) “People living in Southern Africa should be able to move freely across international borders in order to trade or work in other countries”; and (2) “In order to protect their own citizens, governments should limit the cross-border movement of people and goods.” Round 6 uses similar wording with an explicit economic competition frame: Statement 2 references “foreign migrants take away jobs” and “foreign traders sell goods at very cheap prices.” This is available in R6 (2016) and R8 (2021) only; data from Round 7 are unavailable for this question.

the 5-point scale. By R8 (2021), this gap widened to 1.43 as South Africa rose to 3.19 while Zimbabwe fell to 1.76. The two countries thus are moving in opposite directions: South Africa is becoming more restrictive while Zimbabwe is becoming more open. Because this question bundles trade and migration, it captures the aggregate anti-globalization sentiment that our conjoint experiment subsequently decomposes into its trade and migration components.

Panel B isolates immigration-specific attitudes using the neighbor question, which asks whether respondents would like or dislike having immigrants or foreign workers as neighbors (reverse-coded so higher scores indicate greater hostility). This pure immigration measure is available across five rounds (R6–R10). South Africans consistently score approximately 0.5 points higher on the xenophobia scale, and the gap is persistent across all five survey rounds. The stability of the gap is consistent with the regional Stolper-Samuelson prediction. Importantly, further evidence shows that this gap is specific to immigration attitudes rather than general out-group mobility (Appendix Figure D.1). What we did not predict was the opposition to immigration in Zimbabwe, which we posit is driven by inflows of migration from their *even poorer* neighbors.

5.3 The Mechanism

Table 5 examines whether economic and symbolic concerns moderate the penalties associated with regional migration and trade in South Africa. The two dimensions exhibit distinct patterns. Job insecurity does not moderate the trade penalty (0.005), whereas xenophobia substantially increases it (−0.030). For migration, by contrast, xenophobia plays a weaker role, modestly increasing the migration opposition (−0.020, $p < 0.10$). The theoretically important distinction, however, is that only the migration opposition varies with economic exposure. Opposition to regional trade and regional migration thus appear to be distinct phenomena with different underlying sources.

Table 5: Economic vs. Symbolic Moderation of South Africa’s Neighbor Penalties

	Estimate
Zimbabwe Trade Penalty	-0.112*** (0.009)
× Job Insecurity (<i>economic</i>)	0.005 (0.010)
× Lived Poverty Index (<i>economic</i>)	0.010 (0.009)
× Nationalism (<i>symbolic</i>)	0.011 (0.009)
× Xenophobia (<i>symbolic</i>)	-0.030* (0.014)
Zimbabwe Migration Penalty	-0.094*** (0.009)
× Job Insecurity (<i>economic</i>)	-0.021* (0.009)
× Lived Poverty Index (<i>economic</i>)	0.008 (0.009)
× Nationalism (<i>symbolic</i>)	0.004 (0.009)
× Xenophobia (<i>symbolic</i>)	-0.020 [†] (0.011)
<i>N</i> (profiles)	15,430

Note: South African sample from the conjoint experiment. All four moderators are measured in the conjoint survey itself. All conjoint attributes are included in the models. Standard errors are clustered by respondent. [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

H4: Economic Insecurity Increases Opposition to Migration

The conjoint provides evidence of insecurity-driven amplification within South Africa. Table 6 shows that, among South African respondents, the baseline penalty for neighbor immigration is -0.085 ($p < 0.001$). The interaction with economic insecurity, measured by respondents’ perceived difficulty in finding a new job, is -0.041 ($p = 0.040$), indicating that economically insecure South Africans impose a total neighbor immigration penalty of 12.6 percentage points—roughly 50 percent larger than their economically secure counterparts. Within Zimbabwe, by contrast, neither the neighbor immigration penalty itself nor its interaction with insecurity is distinguishable from zero. The pooled triple interaction (Neighbor

$\times$ Insecurity $\times$ SAF = -0.045, $p = 0.082$) is consistent with the prediction that the insecurity effect on this opposition is greater in South Africa, though it falls short of conventional significance at the 5 percent level.¹⁵

Table 6: Economic Insecurity $\times$ Neighbor Immigration Penalty

	South Africa	Zimbabwe	Pooled
Neighbor Immigration (from)	-0.085*** (0.011)	-0.006 (0.010)	-0.006 (0.010)
Economic Insecurity	0.014* (0.007)	-0.001 (0.005)	-0.001 (0.005)
Neighbor $\times$ Insecurity	-0.041* (0.020)	0.003 (0.016)	0.003 (0.016)
South Africa			0.026*** (0.005)
Neighbor $\times$ SAF			-0.079*** (0.014)
Insecurity $\times$ SAF			0.015 (0.009)
Neighbor $\times$ Insecurity $\times$ SAF			-0.045 (0.026)
N	15,430	20,770	36,200

Note: Cluster-robust SEs (clustered by respondent). “Neighbor” = Zimbabwe for South Africa, South Africa for Zimbabwe. Econ. insecurity = subjective job risk > 3 (scale 1–5). * $p < .05$; ** $p < .01$; *** $p < .001$

The full triple interaction, Neighbor $\times$ Insecurity $\times$ SAF, is -0.045 ($p = 0.082$) in the pooled model. This coefficient tests whether the marginal effect of insecurity differs across countries—that is, whether the insecurity gradient varies between South Africa and Zimbabwe—rather than whether a country-level difference exists. Although the estimate approaches conventional significance, it does not meet standard thresholds. Importantly, our interpretation of H4 does not depend on this interaction. A null triple interaction indicates that the insecurity gradient cannot be statistically distinguished across countries; it does not eliminate the structural country-level difference central to our argument. That difference is captured by the lower-order terms and remains consistent with the theoretical framework. The triple interaction should therefore be interpreted as a test of cross-country heterogeneity in individual-level responses rather than as a direct test of the theory.

¹⁵Figures C.3 and C.4 present the heterogeneity analysis by economic insecurity.

H5: Skill Moderates Migration Opposition

Both countries penalize low-skilled migrants, but the penalty is substantially larger in South Africa. The AMCE is -0.203 ($p < 0.001$) in South Africa, compared with -0.146 ($p < 0.001$) in Zimbabwe. Migrant skill is the strongest attribute in the conjoint in both countries, producing larger effects than partner-country identity, trade direction, or any other randomized attribute. Table 4 confirms this cross-country difference: the $\text{SAF} \times \text{Low-skilled migrant}$ interaction is -0.057 ($p < 0.001$), indicating that the low-skill penalty is significantly larger in South Africa than in Zimbabwe.

The five predictions generated by the Regional Stolper-Samuelson framework receive broad support. The strongest evidence supports **H2** (migration asymmetry) and **H3** (trade-migration divergence), which are the two predictions most distinctive to the regional extension of the framework. **H1** (trade openness) and **H5** (skill moderation) are confirmed as expected background conditions. **H4** (insecurity gradient) receives partial support: economic hardship raises anti-immigration sentiment, but it does not differentially affect the regionally scarce-labor country, and it explains none of the cross-country gap. This pattern suggests that the South Africa-Zimbabwe divergence in migration attitudes reflects structural factor-endowment differences rather than individual-level economic grievances.

In Zimbabwe, LPI is a strong predictor of xenophobia but shows a negative association with authoritarianism, suggesting different psychological or political mechanisms at play. The pattern of control variables largely mirrors those in South Africa: Black respondents are less xenophobic and older individuals are less authoritarian. Support for ZANU-PF remains positively associated with xenophobic attitudes.

6 Conclusion

Our pre-registered hypotheses were articulated in country-specific terms, but our theory is general, relating to regional factor abundance, particularly for labor. To that end, re-

sults from our conjoint experiment conducted in South Africa and Zimbabwe, complemented by Afrobarometer data (2016–2025), supported four of our five predictions and provides partial support for the fifth. South Africans oppose low-skilled immigration from Zimbabwe by roughly ten percentage points, whereas Zimbabweans exhibit no comparable antipathy toward migrants from South Africa. South Africans are less favorable to imports from Zimbabwe, but not to the same extent as they oppose migration from their neighbor. This within-respondent divergence rules out xenophobia as a sufficient explanation for a globalization backlash in their country, or neighbor-specific opposition to integration. The within-South Africa insecurity effect is strong, although the cross-national differential falls short of conventional significance. This pattern is consistent with, but not dispositive of the differential-amplification claim. Observational evidence corroborates these patterns: immigration-specific hostility has increased over time in South Africa, while Zimbabwean attitudes toward cross-border openness have become more favorable, widening the divergence between the two countries in line with the framework’s expectations.

Our research makes three contributions. First, in the political economy of globalization, we show that the Stolper–Samuelson mechanism travels to the Global South once the relevant reference point is recalibrated. When middle-income economies operate as regional hubs receiving labor from poorer neighbors, support for trade coexists with opposition to migration targeted at those same partners. This logic is generalizable: we expect similar patterns in Brazil relative to Bolivia and Paraguay, Malaysia and Thailand relative to Myanmar and Cambodia, and Costa Rica relative to Nicaragua. The framework yields clear, testable predictions across these settings.

Second, for the study of democratic erosion in middle-income democracies, our results complicate the standard link between economic insecurity and authoritarianism. Different forms of insecurity activate distinct political responses. Prospective labor market vulnerability consistently predicts xenophobic attitudes, in line with status-threat accounts. By contrast, experienced material deprivation predicts xenophobia in South Africa but is nega-

tively associated with authoritarianism in Zimbabwe, suggesting that chronic deprivation in already constrained political environments may produce pragmatic rather than ideological orientations. Insecurity, in short, is not a unitary construct.

Third, for research on South–South migration, we provide an account of xenophobic backlash in receiving countries that does not rely on cultural exceptionalism. Xenophobic violence in South Africa can be understood as arising from the same factor-endowment logic that underpins anti-immigrant politics in countries such as Germany and the United States. This reframing has implications for regional integration initiatives such as the Southern African Development Community (SADC) and the African Continental Free Trade Area: liberalizing goods flows is politically easier than liberalizing labor flows, and this asymmetry reflects a predictable feature of the underlying political economy rather than an anomaly.

Several limitations bound our claims. First, the paired South Africa–Zimbabwe design leverages the most politically salient migration corridor in Southern Africa, but does not capture more diffuse migration flows from elsewhere on the continent. Second, although our online samples are diverse, they likely under-represent the most economically deprived populations, which would bias estimates of economic insecurity toward zero. Third, the conjoint experiment captures stated policy preferences rather than observed behavior; whether attitudinal opposition translates into voting, protest, or violence remains an open empirical question.

Nevertheless, our regional framework sheds new light on how two neighboring countries, both classified as globally labor-abundant developing democracies in the canonical model, diverge in their migration attitudes in ways that global factor endowments alone cannot explain. Recasting the Stolper–Samuelson model with a localized reference point provides a tractable framework for understanding the politics of globalization not only in the advanced industrial democracies that have dominated recent scholarship, but across a broader and more heterogeneous set of contexts.

References

- Akinola, Adeoye O. 2019. "Xenophobia and the prospects of regional integration in Africa." *Journal of African Union Studies* 8(2):83–101.
- Al Jazeera. 2026. "Ghana Begins Repatriating Citizens as Xenophobia Surges in South Africa." <https://www.aljazeera.com/video/newsfeed/2026/5/27/ghana-begins-repatriating-citizens-as-xenophobia-surges-in-south-africa>. Accessed 19 August 2026.
- Autor, David H, David Dorn and Gordon H Hanson. 2016. "The China shock: Learning from labor-market adjustment to large changes in trade." *Annual review of economics* 8(1):205–240.
- Baccini, Leonardo and Stephen Weymouth. 2021. "Gone for good: Deindustrialization, white voter backlash, and US presidential voting." *American Political Science Review* 115(2):550–567.
- Baker, Andy. 2003. "Why is trade reform so popular in Latin America?: A consumption-based theory of trade policy preferences." *World Politics* 55(3):423–455.
- Bakewell, Oliver, Hein de Haas, Stephen Castles, Simona Vezzoli and Gunvor Jónsson. 2009. "South-South migration and human development: reflection on African experiences." *International Migration Institute* .
- Ballard-Rosa, Cameron, Amalie Jensen and Kenneth Scheve. 2022. "Economic decline, social identity, and authoritarian values in the United States." *International Studies Quarterly* 66(1):sqab027.
- Ballard-Rosa, Cameron, Mashail A Malik, Stephanie J Rickard and Kenneth Scheve. 2021. "The economic origins of authoritarian values: evidence from local trade shocks in the United Kingdom." *Comparative political studies* 54(13):2321–2353.
- Beaulieu, Eugene, Michael Benarroch and James Gaisford. 2004. "Trade barriers and wage inequality in a North–South model with technology-driven intra-industry trade." *Journal of Development Economics* 75(1):113–136.
- Broz, J Lawrence, Jeffry Frieden and Stephen Weymouth. 2021. "Populism in place: the economic geography of the globalization backlash." *International Organization* 75(2):464–494.
- Brühlhart, Marius. 2011. "The spatial effects of trade openness: a survey." *Review of World Economics* 147(1):59–83.
- Burgoon, Brian. 2009. "Globalization and backlash: Polayni's revenge?" *Review of International Political Economy* 16(2):145–177.
- Casella, B., R. Bolwijn, D. Moran and K. Kanemoto. 2019. "Improving the analysis of global value chains: the UNCTAD-Eora Database." *Transnational Corporations* 26(3).

- Clark, William Roberts, Pablo M Pinto and Keigo Tanabe. 2022. "The Perils of Privilege: Manufacturing Wages, Educational Attainment, and the Populist Response to the Industrial Decline."
- Colantone, Italo and Piero Stanig. 2018. "The trade origins of economic nationalism: Import competition and voting behavior in Western Europe." *American Journal of Political Science* 62(4):936–953.
- Crush, Jonathan and Abel Chikanda. 2018. South–South migration and diasporas. In *Routledge Handbook of South–South Relations*. Routledge pp. 380–396.
- Crush, Jonathan and Daniel Tevera. 2010. "Exiting Zimbabwe." *Zimbabwe's exodus: Crisis, migration, survival* pp. 1–49.
- Crush, Jonathan, Godfrey Tawodzera, Abel Chikanda, Sujata Ramachandran and Daniel S Tevera. 2018. "Migrants in Countries in Crisis: South Africa Case Study: The Double Crisis–Mass Migration From Zimbabwe And Xenophobic Violence in South Africa."
- Daily Maverick. 2026a. "Cyril Ramaphosa Recycles Old Plans as Anti-Foreigner Pressure Mounts." <https://www.dailymaverick.co.za/article/2026-06-13-cyril-ramaphosa-recycles-old-plans-as-anti-foreigner-pressure-mounts/>. Accessed 19 August 2026.
- Daily Maverick. 2026b. "Here Are the Countries Repatriating Citizens from SA During Anti-Foreigner Protests." <https://www.dailymaverick.co.za/article/2026-06-03-her-e-are-the-countries-repatriating-citizens-from-sa-during-anti-foreigner-protests/>. Accessed 19 August 2026.
- Dodson, Belinda. 2010. "Locating xenophobia: Debate, discourse, and everyday experience in Cape Town, South Africa." *Africa Today* 56(3):2–22.
- Fan, Jingting. 2019. "Internal geography, labor mobility, and the distributional impacts of trade." *American Economic Journal: Macroeconomics* 11(3):252–288.
- Feldman, Stanley and Karen Stenner. 1997. "Perceived Threat and Authoritarianism." *Political Psychology* 18(4):741–770.
- Flahaux, Marie-Laurence and Hein De Haas. 2016. "African migration: trends, patterns, drivers." *Comparative migration studies* 4(1):1–25.
- Flaherty, Thomas M and Ronald Rogowski. 2021. "Rising Inequality as a Threat to the Liberal International Order." *International Organization* 75(2):495–523.
- Hainmueller, Jens, Daniel J Hopkins and Teppei Yamamoto. 2014. "Causal inference in conjoint analysis: Understanding multidimensional choices via stated preference experiments." *Political analysis* 22(1):1–30.
- Horner, R. and K. Nadvi. 2018. "Global value chains and the rise of the Global South: unpacking twenty-first century polycentric trade." *Global Networks* 18(2):207–237.

- Human Rights Watch. 2026. "South Africa: New Waves of Xenophobic Attacks." <https://www.hrw.org/news/2026/05/20/south-africa-new-waves-of-xenophobic-attacks>. Accessed 19 August 2026.
- Inglehart, Ronald and Pippa Norris. 2017. "Trump and the Populist Authoritarian Parties: The Silent Revolution in Reverse." *Perspectives on Politics* 15(2):443–454.
- Kersting, Norbert. 2009. "New Nationalism and Xenophobia in Africa – a New Inclination?" *Africa Spectrum* 44(1):7–18.
- Krugman, Paul. 1991. "Increasing returns and economic geography." *Journal of political economy* 99(3):483–499.
- Leeper, Thomas J, Sara B Hobolt and James Tilley. 2020. "Measuring subgroup preferences in conjoint experiments." *Political Analysis* 28(2):207–221.
- Linardi, Sera and Nita Rudra. 2020. "Globalization and willingness to support the poor in developing countries: an experiment in India." *Comparative Political Studies* 53(10–11):1656–1689.
- Lipset, Seymour Martin. 1959. "Democracy and Working-Class Authoritarianism." *American Sociological Review* 24(4):482.
- Mansfield, Edward D., Helen V. Milner and Nita Rudra. 2021. "The Globalization Backlash: Exploring New Perspectives." *Comparative Political Studies* 54(13):2267–2285.
- Margalit, Yotam. 2012. "Lost in globalization: International economic integration and the sources of popular discontent." *International Studies Quarterly* 56(3):484–500.
- Margalit, Yotam. 2019a. "Economic insecurity and the causes of populism, reconsidered." *Journal of Economic Perspectives* 33(4):152–70.
- Margalit, Yotam. 2019b. "Political responses to economic shocks." *Annual Review of Political Science* 22:277–295.
- Mayda, Anna Maria and Dani Rodrik. 2005. "Why are some people (and countries) more protectionist than others?" *European Economic Review* 49(6):1393–1430.
- Menéndez González, Irene, Erica Owen and Stefanie Walter. 2023. "Low-skill products by high-skill workers: The distributive effects of trade in emerging and developing countries." *Comparative Political Studies* 56(11):1724–1759.
- Mutanda, Darlington. 2022. "Economic threat, new nationalism and xenophobia in South Africa: Some reflections." *African Security Review* pp. 1–19.
- Mutz, Diana C. 2018. "Status threat, not economic hardship, explains the 2016 presidential vote." *Proceedings of the National Academy of Sciences* 115(19):E4330–E4339.
- Norris, Pippa and Ronald Inglehart. 2019. *Cultural backlash: Trump, Brexit, and authoritarian populism*. Cambridge University Press.

- Oslington, Paul and Isaac Towers. 2010. "Trade, Migration, and Inequality in a World without Factor Price Equalization." *Review of International Economics* 18(4):650–662.
URL: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9396.2010.00902.x>
- Pástor, L'uboš and Pietro Veronesi. 2021. "Inequality aversion, populism, and the backlash against globalization." *The Journal of Finance* 76(6):2857–2906.
- Peters, Margaret E. 2015. "Open trade, closed borders immigration in the era of globalization." *World Politics* 67(1):114–154.
- Rho, Sungmin and Michael Tomz. 2017. "Why don't trade preferences reflect economic self-interest?" *International Organization* 71(S1):S85–S108.
- Rodrik, Dani. 1998. *Has Globalization Gone Too Far?* Vol. 41.
- Rogowski, Ronald. 1987. "Political Cleavages and Changing Exposure to Trade." *American Political Science Review* 81(4):1121–1137.
- Romalis, John. 2004. "Factor Proportions and the Structure of Commodity Trade." *American Economic Review* 94(1):67–97.
- Rotemberg, Julio J and Garth Saloner. 2000. "Competition and human capital accumulation: a theory of interregional specialization and trade." *Regional Science and Urban Economics* 30(4):373–404.
- Rudra, Nita, Irfan Nooruddin and Niccolo W Bonifai. 2021. "Globalization Backlash in Developing Countries: Broadening the Research Agenda." *Comparative Political Studies* 54(13):2416–2441.
- Scheve, Kenneth F. and Matthew J. Slaughter. 2001. "What Determines Individual Trade-Policy Preferences?" *Journal of International Economics* 54(2):267–292.
- Schewel, Kerilyn and Alix Debray. 2024. "Global trends in South–South migration." *The Palgrave handbook of South–South migration and inequality* pp. 153–181.
- Statistics South Africa. 2023. "Census 2022 Statistical Release (P0301.4).".
URL: https://census.statssa.gov.za/assets/documents/2022/P03014_Census_2022_Statistical_Release.pdf
- Walter, Stefanie. 2021. "The backlash against globalization." *Annual Review of Political Science* 24(1):421–442.

Appendix

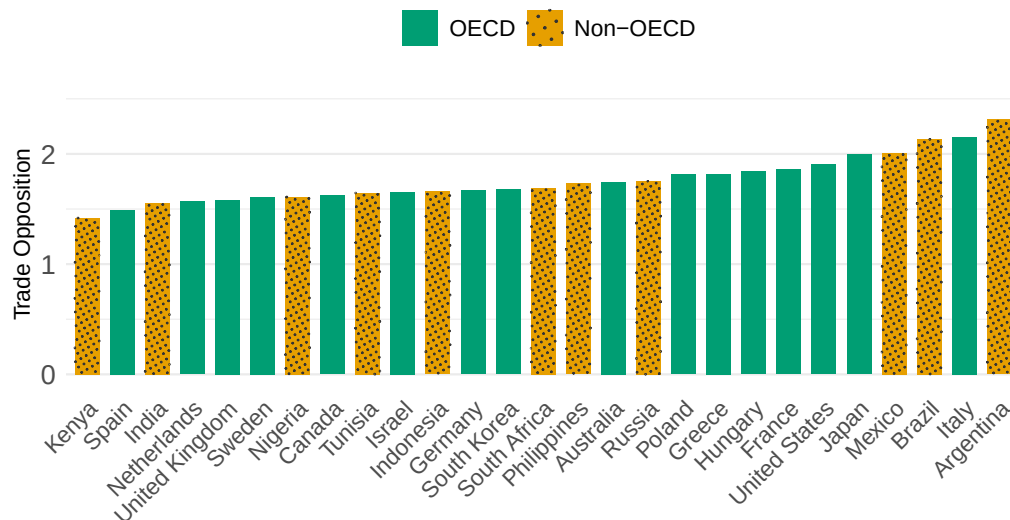
Welcome Goods, Unwelcome Neighbors: Regional Factor Abundance and the Globalization Backlash in Southern Africa

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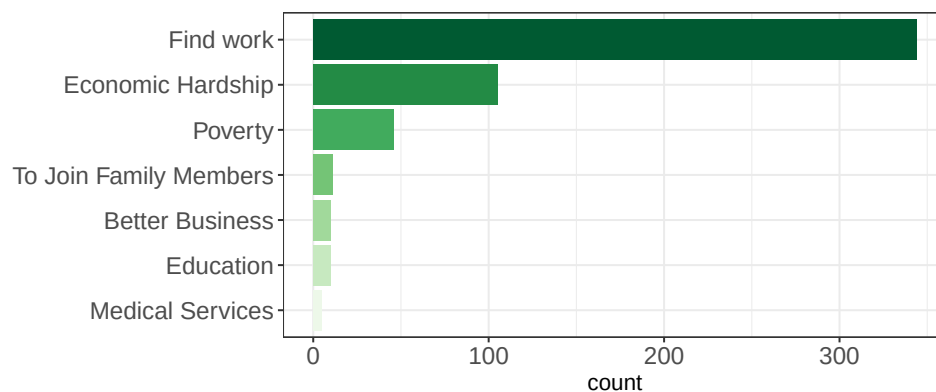
A Globalization Attitudes

Figure A.1: Attitudes Toward Globalization (Pew Research Center 2018)



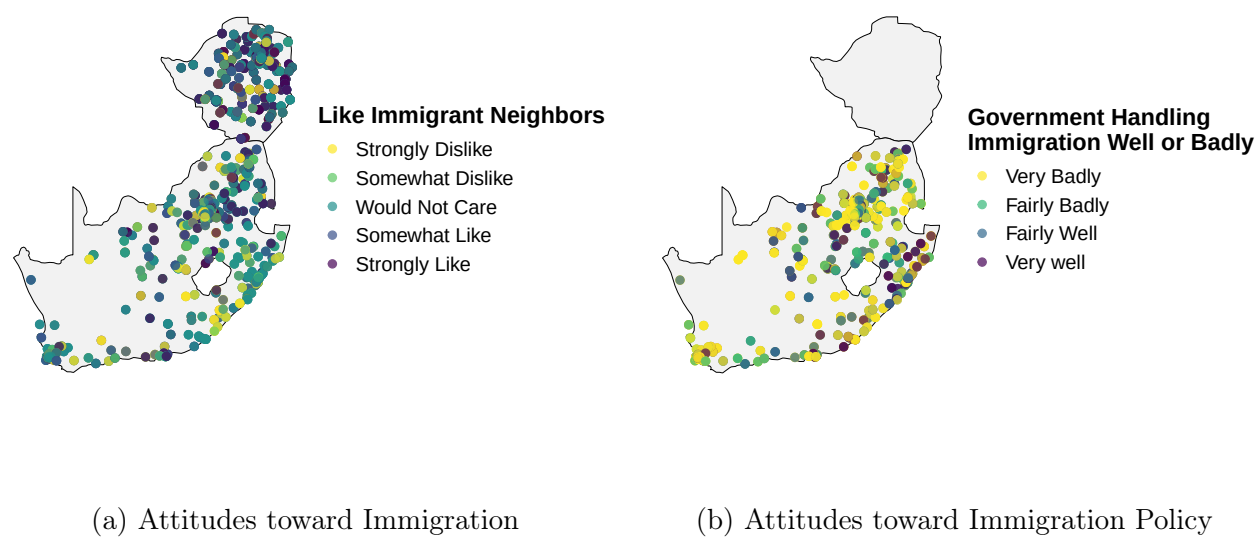
Note: The green bars represent trade attitudes in OECD countries, while the yellow bars with circles correspond to non-OECD countries. The results indicate that, contrary to predictions from canonical economic models, protectionist attitudes are present in developing countries. Moreover, there is notable heterogeneity in trade attitudes both within developing and developed countries. These findings challenge the simplistic binary distinction between developing and developed nations that is often assumed in the literature.

Figure A.2: Primary Reasons for Considering Emigration from Zimbabwe



Note: Data from Afrobarometer Round 7 (2018). Zimbabwean respondents were asked: “There are several reasons why people leave their home to live in another country for an extended period of time. What about you? What is the most important reason why you would consider moving from Zimbabwe?”

Figure A.3: Geographic Distributions of Globalization Backlash



B Pre-registration

The full, text-redacted pre-analysis plan (PAP) can be accessed at <https://drive.google.com/file/d/1hQePJyurXqr9AMl8EwTTcks6cuHN3stt/view?usp=sharing>. Because the original registry files on the Open Science Framework (OSF) contain identifying author details, this text-redacted copy is provided separately to preserve the double-blind review process. The corresponding pre-registration metadata is included as the following. The permanent, unblinded OSF repository link will be restored upon acceptance.

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Description

This study examines the effect of economic and civil insecurity (understood as vulnerability to economic loss and violence) on citizens' attitudes toward globalization—understood as both the movement of humans and goods (trade) across borders. We examine whether and how perceptions of insecurity affect citizens' attitudes toward globalization by conducting online surveys in South Africa and Zimbabwe. The survey elicits information first about individuals' perceptions of the risk of income loss and victimization by violent crime, and second about the resources with which they can cope with these risks. We ask about citizens' attitudes about trade in goods, and also openness to human movement across borders, as well as attitudes about democracy and authoritarian dispositions. This is a study that we hope to use as the basis on which to develop a larger and cross-national study of insecurity, democracy, and the globalization backlash.

Hide

Supplements

No supplements

1/1

A3

Table B.1: Pre-Analysis Plan Predictions and Results

Pre-registered Expectation	Primary Evidence	Status
<i>A. Pre-registered conjoint attributes</i>		
Trade goal: both countries favor exports over imports (H1)	Table 4	Confirmed
Migration from: SA prefers Europe/N. America over Zimbabwe; ZIM no expectation (H2)	Table 4	Confirmed
Migration to (emigration): ZIM supports all destinations, <i>strongest</i> for South Africa	Table 4; Figure C.2	Not supported
Migrant skill: both countries prefer high- over low-skilled migrants (H5)	Table 4	Confirmed
Trade partner: no expectation	Figure 4	Exploratory
<i>B. Pre-registered insecurity expectations</i>		
Insecure South Africans oppose in-migration (H3)	Table 6	Confirmed
Insecurity in SA raises xenophobia, nationalism, and anti-democratic views	Table C.6	Partial / mixed
Insecurity in Zimbabwe raises support for out-migration and opposition to in-migration	Table 6	Not supported
Insecure individuals in <i>both</i> countries support free trade	Table 8; Figure C.4	Not supported
<i>C. Post-hoc extensions (not pre-registered)</i>		
H2 cross-national asymmetry (emphasis); H4 trade-migration asymmetry; H5 cross-national skill-gap	Figures 4–5	Exploratory

Note: This table maps each pre-registered expectation to its primary empirical evidence and indicates whether the prediction was supported. Hypotheses introduced after the pre-analysis plan are explicitly labeled as exploratory.

C Conjoint Experiment

C.1 Conjoint Survey Design

We pre-registered a fully randomized conjoint experiment in South Africa and Zimbabwe.¹ Each respondent completed five tasks; in each task, respondents viewed two policy bundles side by side and selected the one they preferred. After each choice, respondents also rated each of the two bundles separately on a 5-point Likert scale. The design yielded 15,430 profiles in South Africa (1,543 respondents $\times$ 5 tasks $\times$ 2 profiles) and 20,770 profiles in Zimbabwe (2,077 respondents $\times$ 5 tasks $\times$ 2 profiles).

Attributes and levels Each policy bundle varied on five attributes: the origin of immigration, the skill level of in-migrants, the destination of out-migration, the trading partner, and the trade goal (exports vs. imports). Table 2 lists the levels for each attribute. The regional neighbor level varied by country: for South African respondents, the neighbor was Zimbabwe; for Zimbabwean respondents, the neighbor was South Africa. This design choice ensures that the “neighbor” category refers to each country’s actual migration corridor partner, enabling the cross-national comparison that our framework requires.

Randomization Attribute levels were assigned independently and with uniform probability within each profile. Because no combinations are theoretically implausible for our framework (e.g., we wanted respondents to see Zimbabwean migrants with high education alongside European migrants with low education), we did not impose conditional logic on the randomization. Order of attribute presentation was also randomized across respondents to mitigate primacy effects, following standard practice in conjoint research (Hainmueller, Hopkins and Yamamoto, 2014).

Dependent variables We construct three dependent variables from the conjoint tasks:

1. *Forced choice*: a binary indicator equal to 1 if the profile was selected as the more preferred of the two in its task. This is the standard dependent variable for AMCE estimation (Hainmueller, Hopkins and Yamamoto, 2014).
2. *Migration rating*: the respondent’s 5-point Likert rating of the profile’s migration content, specifically how much they agree with the combination of in-migration origin, out-migration destination, and migrant skill level shown.
3. *Trade rating*: the respondent’s 5-point Likert rating of the profile’s trade content, combining trade partner and trade goal.

The forced choice measure underlies the AMCE and marginal-means estimates reported in the main text. The separate migration and trade ratings enable us to test Prediction 4 (the trade–migration asymmetry) within respondent, since each respondent rates both dimensions of the same profile independently.

¹Pre-analysis plan available in Appendix B.

Estimation Following Leeper, Hobolt and Tilley (2020), we report marginal means as our primary quantity of interest in the main text. Marginal means are less sensitive to the choice of baseline category than AMCEs and are more interpretable for subgroup comparisons, which matter for testing Prediction 3 (the insecurity gradient) and the cross-national asymmetry in Prediction 2. We report conditional AMCEs in Appendix C.3 for completeness. All standard errors are clustered by respondent.

Sample Respondents were recruited through Pure Spectrum, which maintains online probability panels in both countries. The sampling frame is the adult (≥ 18) online population. Quotas were set on gender, age bracket, and province/region to approximate population marginals within each country. We describe sample characteristics in Appendix C.2. As is common with online panels in middle-income contexts, the sample is somewhat younger and more educated than the general population—a limitation that, given our theory, likely *attenuates* our estimated insecurity effects and makes the findings conservative.

Pre-registered hypotheses Our pre-analysis plan specified expectations for four of the five attributes. Table C.1 maps each pre-registered expectation to the corresponding numbered Prediction in the main text.

Table C.1: Mapping Pre-Registered Expectations to Numbered Predictions

Attribute	Pre-registered expectation	Corresponds to
Trade goal	Both countries: export preferred over import	Hypothesis 1
Open migration from	SA: Europe/NA > Zimbabwe. ZIM: no expectation	Hypothesis 2
Open migration to	SA: Europe/NA > Zimbabwe. ZIM: all supported, SA strongest	Hypothesis 2
Migrant skill	Both countries: high-skill > low-skill	Hypothesis 3
Trade partner	No expectation in either country	(no Hypothesis)

Note: Hypothesis 4 (trade–migration asymmetry) and 5 (cross-national difference in the skill gap) are theoretical extensions of the regional framework and were not separately pre-registered.

C.2 Descriptive Statistics

Table C.2: Descriptive Statistics: South Africa Conjoint Sample

	N	Mean	SD	Min	Max
Age	1,543	42.80	15.51	19.00	72.00
Female	1,543	0.56	0.50	0.00	1.00
Secondary Education	1,543	0.96	0.20	0.00	1.00
Rural	1,540	0.11	0.31	0.00	1.00
Married/Partner	1,543	0.52	0.50	0.00	1.00
Full-time Employment	1,543	0.54	0.50	0.00	1.00
Unemployed	1,543	0.13	0.34	0.00	1.00
Black	1,543	0.54	0.50	0.00	1.00
Job Relocation Insecurity	1,543	2.52	1.39	1.00	5.00
Lived Poverty Index (std.)	1,543	0.00	0.64	-0.89	3.21
Xenophobia Index (std.)	1,542	0.01	0.67	-1.28	0.90
National Identity Index (std.)	1,542	0.01	0.64	-2.23	0.68
Authoritarianism	1,543	1.54	0.82	1.00	3.00
ANC	1,543	0.26	0.44	0.00	1.00
Democratic Alliance	1,543	0.39	0.49	0.00	1.00

Table C.3: Descriptive Statistics: Zimbabwe Conjoint Sample

	N	Mean	SD	Min	Max
Age	2,074	30.76	9.08	19.00	67.00
Female	2,071	0.58	0.49	0.00	1.00
Secondary Education	2,077	0.97	0.16	0.00	1.00
Rural	2,076	0.07	0.26	0.00	1.00
Married/Partner	2,077	0.39	0.49	0.00	1.00
Full-time Employment	2,077	0.29	0.45	0.00	1.00
Unemployed	2,077	0.35	0.48	0.00	1.00
Black	2,077	0.98	0.14	0.00	1.00
Job Relocation Insecurity	2,077	3.11	1.35	1.00	5.00
Lived Poverty Index (std.)	2,077	0.00	0.66	-1.18	2.86
Xenophobia Index (std.)	2,077	0.00	0.82	-1.24	1.77
National Identity Index (std.)	1,858	0.03	0.79	-2.55	0.93
Authoritarianism	2,074	1.48	0.78	1.00	3.00
ZANU-PF	2,077	0.36	0.48	0.00	1.00
MDC	2,077	0.01	0.11	0.00	1.00
CCC	2,077	0.24	0.42	0.00	1.00

C.3 AMCE Estimates

Figures C.1 and C.2 illustrate the AMCE (Average Marginal Component Effect) for South African and Zimbabwean respondents, respectively. Because our focus is on South African attitudes toward Zimbabwe and Zimbabweans attitudes toward South Africans, we set Europe—the geographically closest global economic partner for Africa—as the reference category.

C.3.1 South Africa

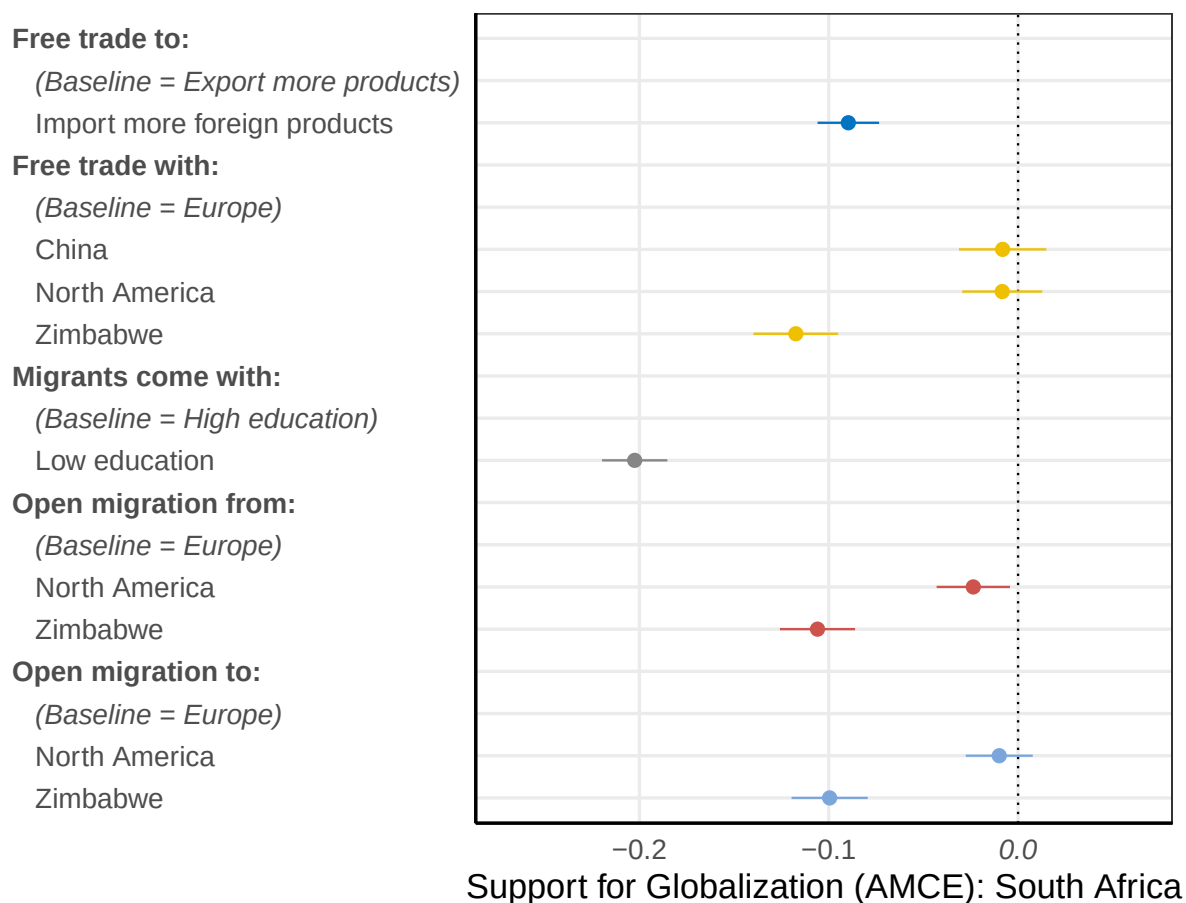


Figure C.1: Estimated AMCE from Conjoint Experiment in South Africa

Table C.4: Economic versus symbolic moderation: full specifications

	(1) Economic	(2) Symbolic	(3) Both
Neighbor TRADE penalty	-0.112*** (0.009)	-0.112*** (0.009)	-0.112*** (0.009)
Neighbor MIGRATION penalty	-0.094*** (0.009)	-0.094*** (0.009)	-0.094*** (0.009)
<i>Economic moderation</i>			
Trade $\times$ Job insecurity	-0.001 (0.009)	—	0.005 (0.010)
Migration $\times$ Job insecurity	-0.024** (0.009)	—	-0.021* (0.009)
Trade $\times$ Lived Poverty Index	0.009 (0.009)	—	0.010 (0.009)
Migration $\times$ Lived Poverty Index	0.006 (0.009)	—	0.008 (0.009)
<i>Symbolic moderation</i>			
Trade $\times$ Nationalism	—	0.009 (0.009)	0.011 (0.009)
Migration $\times$ Nationalism	—	0.007 (0.009)	0.004 (0.009)
Trade $\times$ Xenophobia	—	-0.029* (0.013)	-0.030* (0.014)
Migration $\times$ Xenophobia	—	-0.023* (0.011)	-0.020 [†] (0.011)
<i>Moderator main effects</i>			
Job insecurity (std.)	0.008 [†] (0.004)	—	0.005 (0.004)
Lived Poverty Index (std.)	-0.004 (0.004)	—	-0.004 (0.004)
Nationalism (std.)	—	-0.004 (0.004)	-0.004 (0.004)
Xenophobia (std.)	—	0.014* (0.006)	0.014* (0.006)
<i>Conjoint attribute controls</i>			
Emigration to: North America	-0.010 (0.009)	-0.010 (0.009)	-0.010 (0.009)
Emigration to: Zimbabwe	-0.099*** (0.010)	-0.100*** (0.010)	-0.099*** (0.010)
Migrants arrive: low education	-0.203*** (0.009)	-0.202*** (0.009)	-0.202*** (0.009)
Trade goal: import more	-0.090*** (0.008)	-0.090*** (0.008)	-0.090*** (0.008)
Constant	0.740*** (0.009)	0.740*** (0.009)	0.740*** (0.009)
<i>N</i> (profiles)	15,430	15,430	15,430
<i>R</i> ²	0.076	0.077	0.077

C.3.2 Zimbabwe

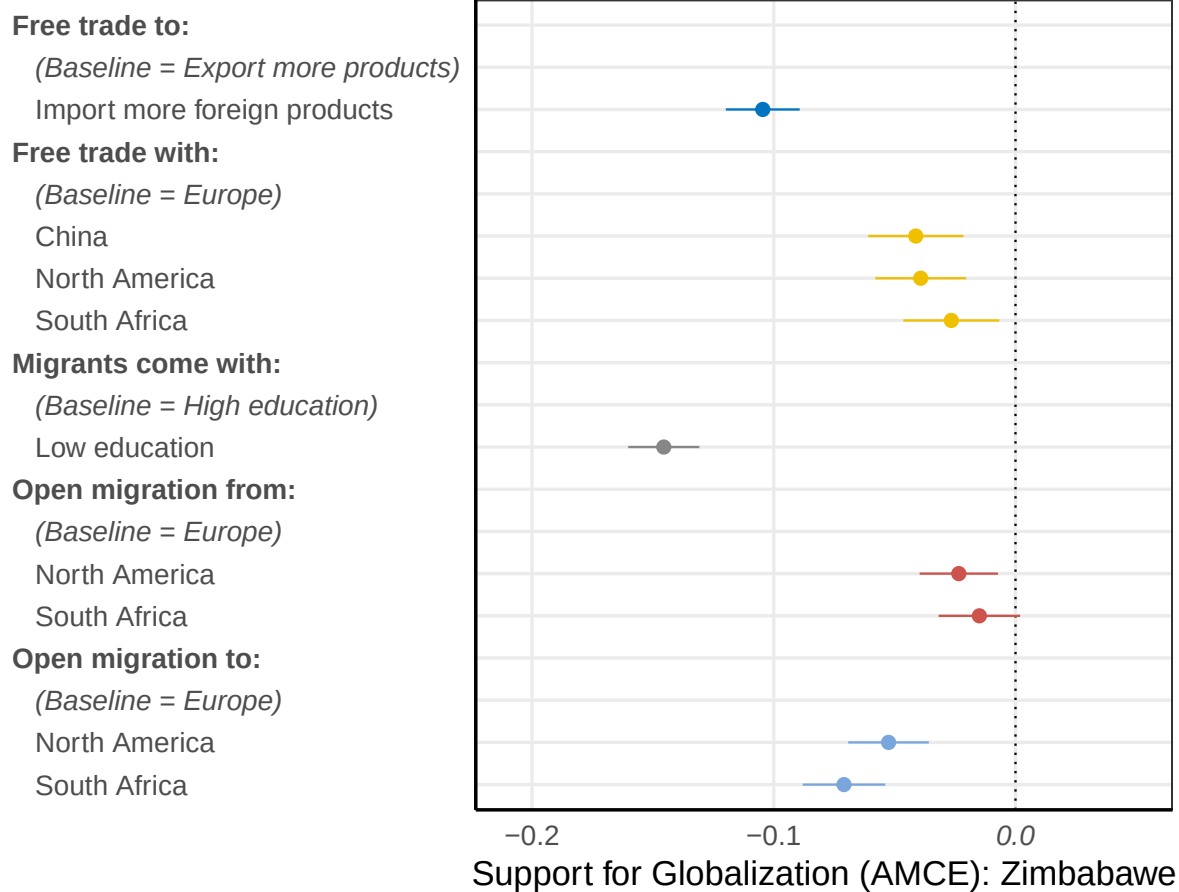


Figure C.2: Estimated AMCE from Conjoint Experiment in Zimbabwe

C.4 Heterogeneous Effects by Economic Insecurity

C.4.1 South Africa

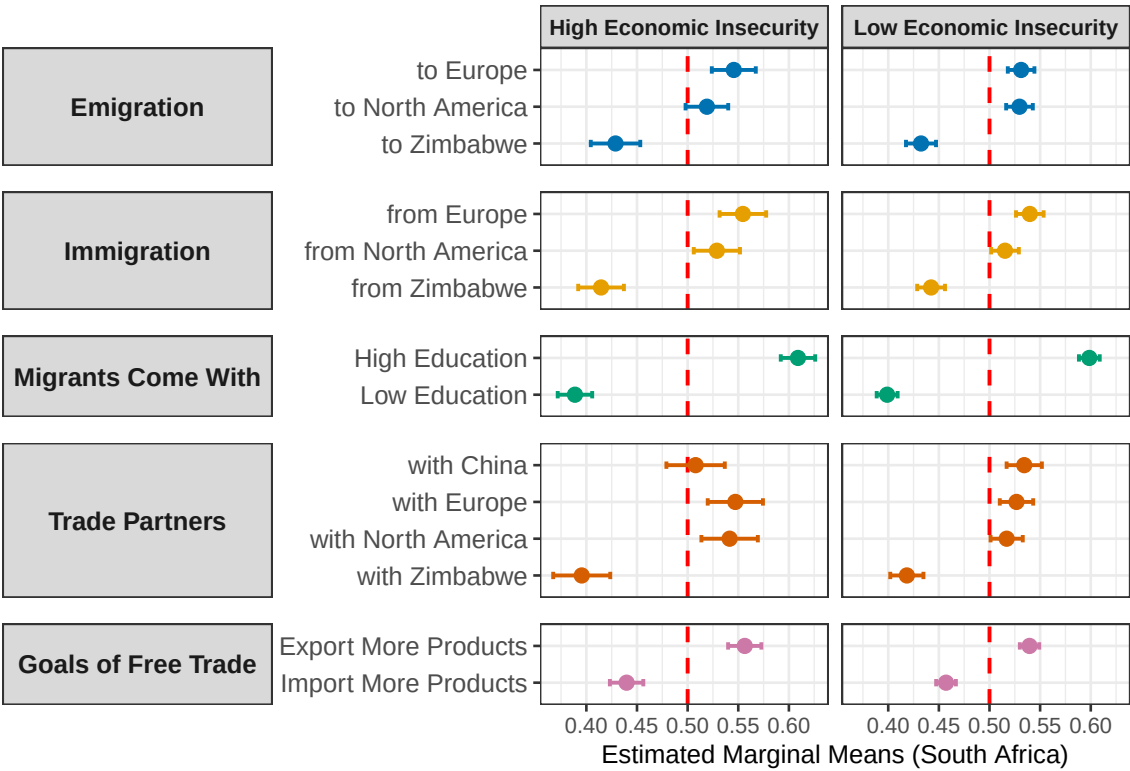


Figure C.3: Marginal Means by Economic Insecurity in South Africa

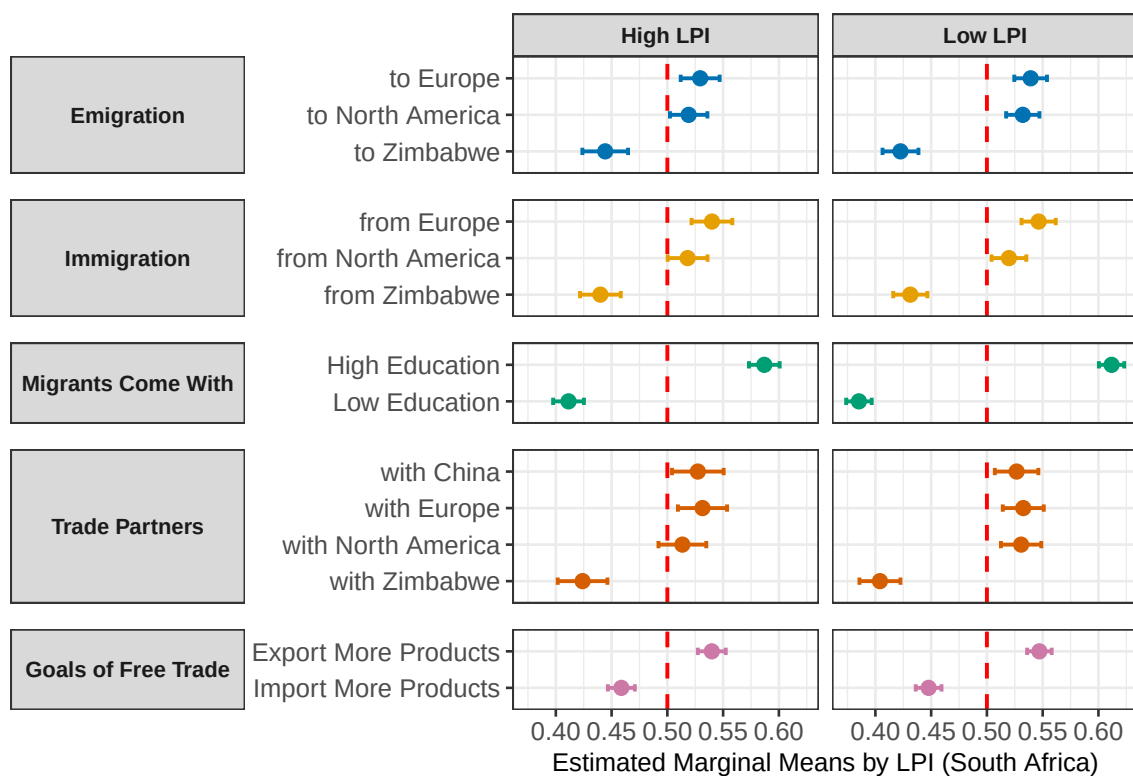


Figure C.4: Marginal Means by LPI in South Africa

C.4.2 Zimbabwe

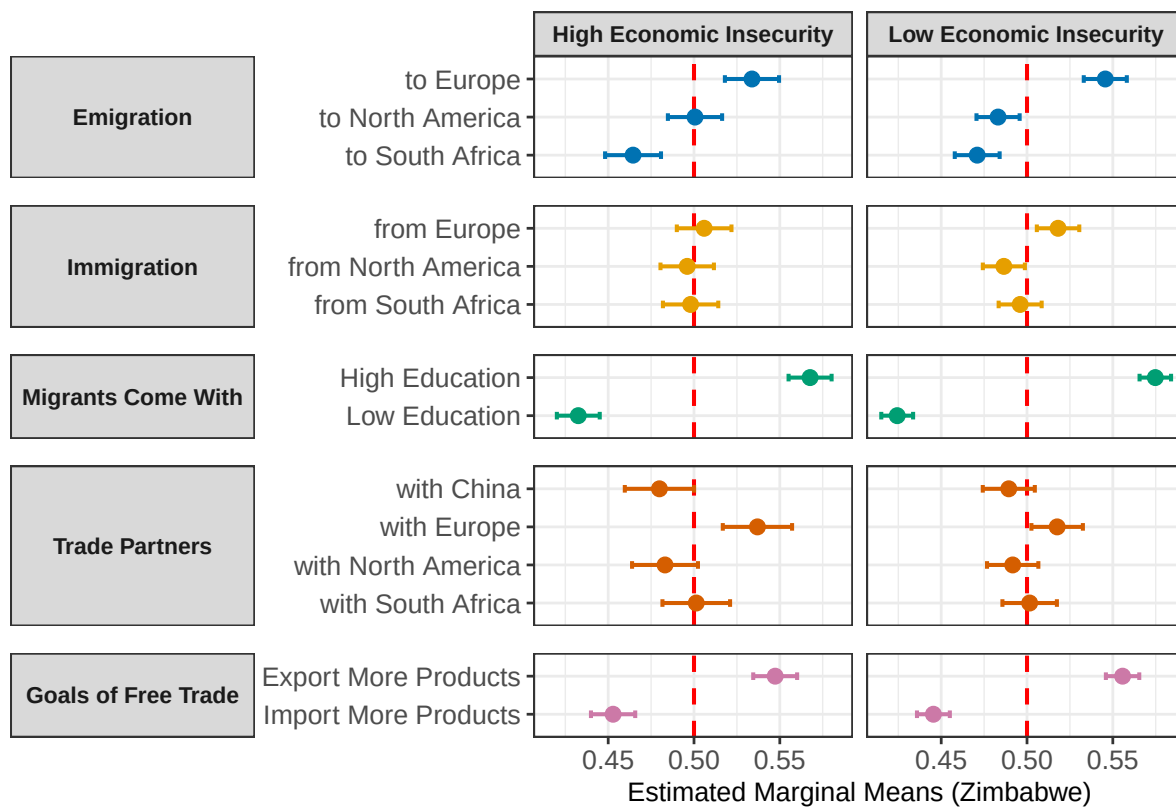


Figure C.5: Marginal Means by Economic Insecurity in Zimbabwe

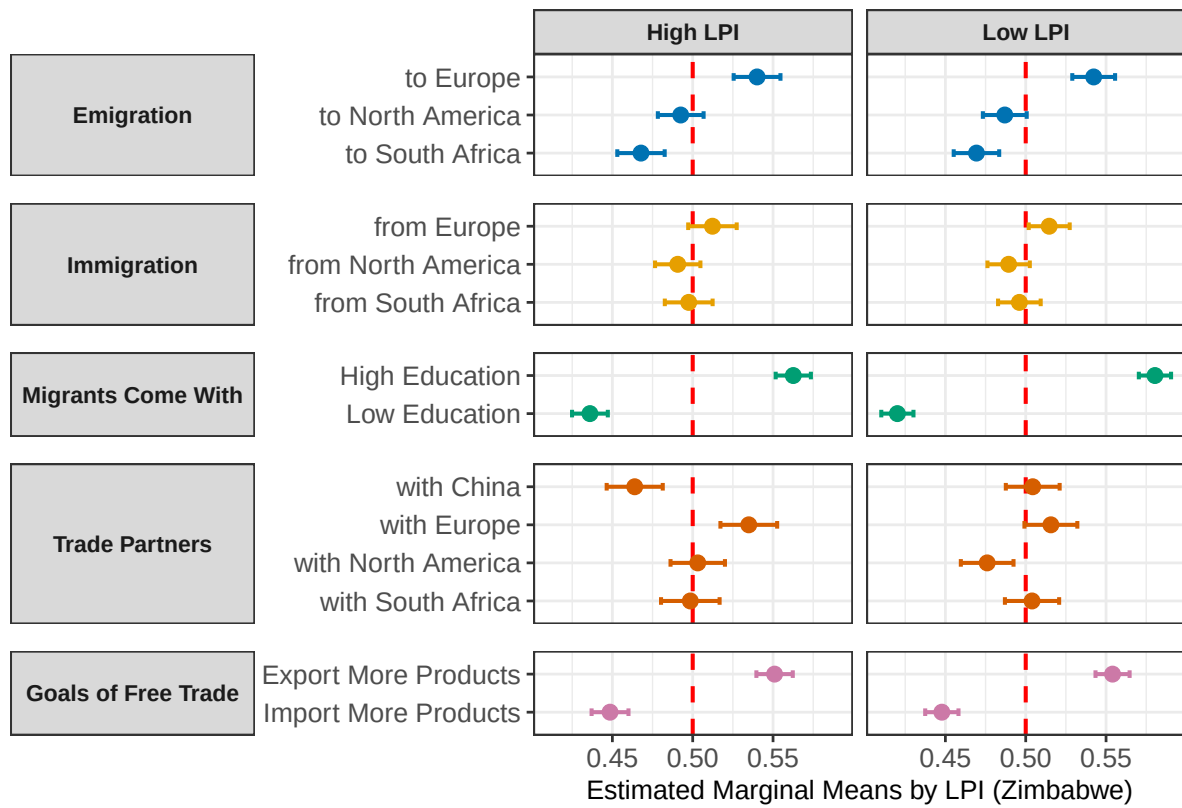


Figure C.6: Marginal Means by LPI in Zimbabwe

C.5 Dimensions of Economic Insecurity

C.5.1 National Identity and Xenophobia

We further examine how economic insecurity influences two dimensions of political attitudes: national identity (attachment to the national community) and xenophobia (hostility toward immigrants). These variables were assessed outside of the conjoint experiment and were asked once per respondent, allowing us to explore broader attitudinal patterns.

Table C.5 shows whether economic insecurity predicts xenophobia and nationalism. Consistent with our theoretical distinction between prospective labor market vulnerability and experienced material deprivation, the two measures predict xenophobia through country-specific channels. In South Africa, the regionally capital-abundant receiving country, job insecurity significantly predicts xenophobia ($\beta = 0.069$, $p < 0.05$), while LPI is not independently significant. This pattern is consistent with the status-threat mechanism: South Africans who believe they could not easily find new employment express greater hostility toward migrants who they perceive as labor-market competitors.

Table C.5: Insecurity Measures on Xenophobia and Nationalism

	Xenophobia		Nationalism	
	South Africa	Zimbabwe	South Africa	Zimbabwe
Job Insecurity	0.069* (0.033)	0.004 (0.023)	−0.093** (0.029)	0.103*** (0.023)
Lived Poverty Index	0.063 (0.043)	0.127*** (0.023)	−0.038 (0.025)	−0.139*** (0.022)
Female	−0.031 (0.047)	0.185*** (0.043)	0.097† (0.052)	0.113* (0.044)
Age	0.005** (0.002)	−0.021*** (0.003)	−0.001 (0.002)	0.003 (0.003)
Secondary Education	0.100 (0.106)	−0.214 (0.139)	0.072 (0.138)	−0.169 (0.126)
Black	−0.260*** (0.052)	−0.577*** (0.162)	0.328*** (0.058)	0.300† (0.181)
<i>N</i>	1,543	2,074	1,543	2,073
<i>R</i> ²	0.049	0.062	0.083	0.043

Note: OLS with robust standard errors. Dependent variables standardized within country. Job Insecurity is the 1–5 scale of perceived difficulty finding a new job if the current one were lost, standardized within country. Lived Poverty Index (LPI) is the 5-item standardized index of experienced material deprivation. Both measures are entered in the same regression to horse-race the two channels of insecurity. Coefficients are shown above standard errors in parentheses. Party controls (ANC in SAF; ZANU-PF in ZIM) included but not shown. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

In Zimbabwe, the channel reverses. Job insecurity is null, while LPI strongly predicts xenophobia ($\beta = 0.127$, $p < 0.001$). This supports the recursive regional-framework interpretation where emigration opportunities blunt prospective insecurity, chronic deprivation—

rather than status threat—drives hostility toward the even poorer migrants Zimbabwe itself receives.

The nationalism results show a distinct cross-national pattern. In South Africa, insecurity predicts *weaker* national identity ($\beta = -0.093$, $p < 0.01$), consistent with a deprivation-driven disengagement from the state. In Zimbabwe, by contrast, job insecurity predicts *stronger* nationalism ($\beta = 0.103$, $p < 0.001$), while LPI-deprivation predicts weaker identity. This divergence highlights that the two insecurity measures activate different channels, and that structural position (receiving vs. sending) conditions which channel is operative.² Whereas insecurity is orthogonal to trade preferences, it is a driver of migration preferences. Indeed, the South Africa neighbor-trade penalty has no insecurity gradient, and loads only on xenophobia, suggesting that the latter is a spill-over of out-group hostility, rather than economic.

C.5.2 Authoritarianism

Table C.6: Effects on Authoritarianism (Conjoint vs. Afrobarometer)

	Conjoint (2024)		Afrobarometer R8 (2021)	
	South Africa	Zimbabwe	South Africa	Zimbabwe
Job Relocation Insecurity	0.021 (0.022)	-0.021 (0.018)	—	—
Lived Poverty Index	0.069** (0.021)	-0.046** (0.018)	-0.018 (0.024)	-0.004 (0.022)
Female	0.039 (0.043)	-0.029 (0.035)	-0.109* (0.045)	-0.012 (0.043)
Age	-0.005** (0.002)	-0.007*** (0.002)	0.005*** (0.002)	0.005*** (0.001)
Secondary Education	-0.067 (0.096)	-0.098 (0.112)	0.127* (0.051)	0.132** (0.046)
N	1,543	2,071	1,536	1,150

Note: OLS estimates with robust standard errors. The dependent variable is the three-point democracy preference item (Q21 in Afrobarometer, with identical wording in the conjoint): 1 = “Democracy is preferable to any other kind of government,” 2 = “Doesn’t matter,” and 3 = “Non-democratic government can be preferable.” Higher values therefore indicate stronger authoritarian dispositions. All continuous predictors are standardized within country. The conjoint specifications include both insecurity measures and party controls (ANC in South Africa; ZANU-PF in Zimbabwe); Afrobarometer does not include a comparable measure of job relocation insecurity and instead includes an urban indicator. Controls are not reported. Job relocation insecurity is unrelated to authoritarianism in either country. Although lived poverty is associated with authoritarianism in opposite directions across the two conjoint samples, neither association replicates in Afrobarometer. We therefore treat authoritarianism as a non-robust mechanism and focus on xenophobia and nationalism in the main text (Table C.5). [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

²We examine authoritarianism as a possible third mechanism (Table C.6). Our status-threat measure (job insecurity) does not predict authoritarianism in either country, and the Lived Poverty Index shows opposite-signed associations in the conjoint that do not replicate in Afrobarometer R8.

D Cross-national Analysis

Table D.1: Descriptive Statistics

	Mean	SD	Min	Max	<i>N</i>
Capital per worker (2017 US\$ PPP, 000s)	56.1	58.6	3.1	210.9	41
Log capital per worker	10.35	1.16	8.05	12.26	41
Regional K/L abundance (std.)	0.00	1.00	-2.10	1.81	41
Migrant stock (% of population)	2.90	3.38	0.10	18.60	41
GDP per capita (PPP, 000s)	6.7	5.6	1.0	25.2	41
Anti-immigrant hostility, R6 (2016)	2.61	0.46	1.81	3.35	33
Anti-immigrant hostility, R7 (2018)	2.51	0.46	1.62	3.30	34
Anti-immigrant hostility, R8 (2021/22)	2.44	0.45	1.61	3.31	34
Anti-immigrant hostility, R9 (2021/23)	2.65	0.41	1.83	3.40	38
Anti-immigrant hostility, R10 (2024/25)	2.75	0.41	2.05	3.59	27

Note: Country-level measures are constructed for the 41-country sample. Capital per worker is drawn from Penn World Table 10.0, while migrant stock and GDP per capita are obtained from the World Bank. Regional abundance is calculated using equation (10), with $d_0 = 1,500$, and standardized across countries. The outcome rows report country-level means of the Afrobarometer immigrant-neighbour item, reverse-coded so that higher values indicate greater hostility. *N* denotes the number of countries surveyed in each round.

Table D.2: Regional Factor Abundance Effects by Receiver Status

	(1)	(2)	(3)
Regional K/L abundance	–	0.243*	0.270*
		(0.114)	(0.108)
Receiver status (migrant stock)	-0.106**	–	-0.118**
	(0.039)		(0.039)
GDP per capita	0.269***	0.007	0.029
	(0.055)	(0.124)	(0.114)
Round fixed effects	Yes	Yes	Yes
<i>N</i>	166	166	166
<i>R</i> ²	0.343	0.345	0.409

Note: The sample pools R6–R10 and includes round fixed effects, with standard errors clustered by country and reported in parentheses. Column 1 includes receiver status, Column 2 includes regional factor abundance, and Column 3 includes both variables jointly. All independent variables are standardized. The correlation between receiver status and regional factor abundance is 0.365. * $p < .05$; ** $p < .01$; *** $p < .001$.

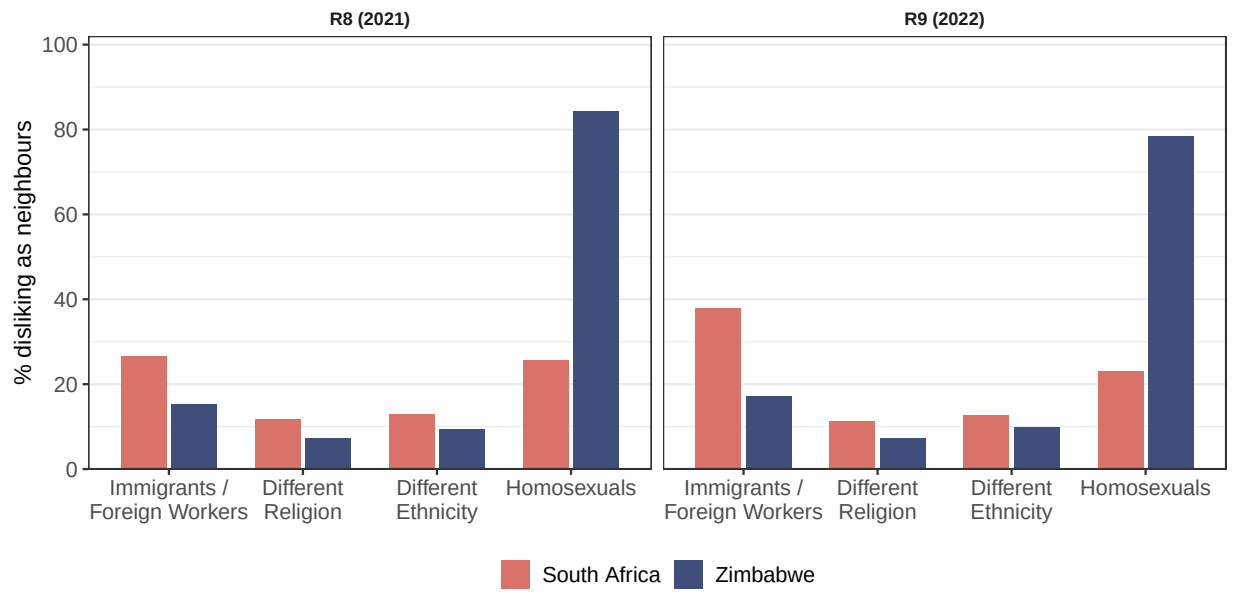


Figure D.1: Placebo Tests on Attitudes Toward Out-groups