SHORT ARTICLE

Ethnocentrism Reduces Foreign Direct Investment

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The tension between global economic integration and ethnocentrism is a growing political force across industrialized countries. Whereas extant research emphasizes ethnocentrism's influence on individual attitudes, we show that ethnocentrism has direct economic costs. We exploit strong public support for greenfield foreign direct investment (FDI) to isolate ethnocentrism's costs. Our analysis of US state greenfield FDI flows during 2004–12 holds constant country-level factors that correlate with both ethnocentrism and propensity to receive FDI. A 1 standard deviation increase in state ethnocentrism, as manifest in anti-immigrant sentiment, corresponds to approximately $229 million less greenfield FDI and 180 fewer jobs per state-year on average. Findings are robust to controls for state economic conditions, transactions costs, existing FDI stock, demographics, and state partisanship. These findings clarify the economic cost of ethnocentrism-based political strategies and suggest that mass political sentiment constrains global economic integration.

Brexit, the election of Donald Trump, and the ascendancy of far right political movements lay bare a sharp and rising tension between global economic integration and ethnocentrism, the psychological tendency to parse the world into virtuous in-groups and nefarious out-groups. Public opinion research correlates ethnocentrism with opposition to immigration, trade, and foreign outsourcing (e.g., Hainmueller and Hiscox 2010; Mansfield and Mutz 2009, 2013). These findings suggest that ethnocentrism's effects are indirect, manifesting in mass political behavior that in turn may shape policy (Kinder and Kam 2009).

By contrast, we argue that ethnocentrism directly undermines economic integration. Ethnocentrism erodes the trust necessary to form and sustain cross-border contractual relationships, creates an aversion to the consumption of foreign products, and weakens the information exchange necessary for efficient markets (Fernández 2011; Guiso, Sapienza, and Zingales 2009; Verlegh and Steenkamp 1999). The challenge to establishing ethnocentrism's direct costs is that it correlates with other country characteristics that influence the depth of integration. A further challenge is parsing ethnocentrism and economic dislocation as drivers of anti-integration sentiment.

We demonstrate ethnocentrism's direct cost by exploiting the popularity of greenfield foreign direct investment (FDI), foreign firms' investments to establish new production facilities. Even the most ethnocentric politicians and voters covet greenfield FDI as a source of new jobs and economic activity. In a recent Pew survey, 75% of US respondents favored greenfield FDI, whereas only 28% supported foreign acquisitions of existing US firms (Pew Research Center 2014, 14). Greenfield FDI is the entry of new firms, so it does not directly cost jobs, add fiscal burdens, or present other standard economic reasons for opposing global integration. American voters reward state politicians who court greenfield FDI, even when those efforts are unsuccessful (Jensen et al. 2014; Jensen, Malesky, and Walsh 2015). The US imposes minimal policy barriers to greenfield FDI.[1] Greenfield investors are also more flexible in their subnational location decisions than investors

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Financial support for this research was provided by the Batten Institute for Entrepreneurship and Innovation, Darden School of Business. Data and supporting materials necessary to reproduce the numerical results in the article are available in the *JOP* Dataverse (https://dataverse.harvard.edu/dataverse/jop). An online appendix with supplementary material is available at http://dx.doi.org/10.1086/694916.

1. Most US FDI regulation pertains to the foreign acquisition of US-owned firms.

The Journal of Politics, volume 80, number 2. Published online February 27, 2018. http://dx.doi.org/10.1086/694916
 0022-3816/2018/8002-0023$10.00

acquiring existing firms, and thus have greater latitude to consider local conditions like political sentiments. Anti-foreigner attitudes undermine foreign firms' productivity through channels like increased turnover of foreign managers, less motivated employees, and potential bias in local supplier relationships.[2]

Our analysis of annual US state inflows of greenfield FDI during 2004–12 shows that states with stronger ethnocentrism receive less of these investments. A 1 standard deviation increase in ethnocentrism corresponds to nearly $229 million less annual greenfield FDI and 180 forgone jobs per state-year on average. In analyzing greenfield FDI flows across US states, we hold constant country-level drivers of FDI, including those that correlate with ethnocentrism. Subnational location decisions do not reflect broad cultural and institutional differences between countries because we observe firms that have already decided to invest in the United States. Ethnocentrism, measured as anti-immigration sentiment, fluctuates across states and over time. Our findings are robust to controls for state economic characteristics that independently influence ethnocentrism and attractiveness to foreign investors. Additional robustness tests consider transactions costs, existing FDI, the size of the foreign-born population, alternate measures of ethnocentrism, and state politics. We also find no correlation between ethnocentrism and foreign acquisitions.

Our findings indicate that ethnocentrism creates tangible economic costs above and beyond any indirect influence of mass sentiment on policy outcomes. To the extent that ethnocentrism hinders cross-border economic exchange, it is a binding constraint on formal economic integration. This insight can help explain the underperformance of international economic agreements in producing deeper economic integration (Mansfield and Milner 2012).

Additionally, we demonstrate that FDI flows are sensitive to mass political sentiments. Although political institutions occupy a central role in FDI research,[3] the role of mass political sentiment in driving FDI has been overlooked. We show that holding institutions constant, ethnocentrism influences foreign firms' location decisions, even when public support for investment itself is very high.[4] Ethnocentrism represents a new and growing source of political risk in advanced economies that have traditionally embraced FDI.

EMPIRICAL ANALYSIS

We model US state-year greenfield FDI during 2004–12.[5] Depending on the year, firms from 80 to 120 countries invest in at least one US state. Data are from the *Financial Times*' fdiIntelligence database, the leading source for greenfield FDI data. Annual state greenfield FDI inflows is the sum of newly announced capital investment by firms headquartered outside of the United States. The inflation-adjusted log dollar value of all greenfield FDI into US state j in year t is $\log(\text{greenfield})_{jt}$.[6] Our data have many zeros, reflecting state-years with no investment. We estimate tobit models, which are appropriate for censored dependent variables.[7] All models include state fixed effects, and we report robust standard errors clustered by state.[8]

We measure ethnocentrism using the universe of national Gallup polls during the sample period that include at least one question on immigration attitudes.[9] At least four times per year, polls asked either "Do you favor increasing the [country's] level of immigration?" or "Do you favor liberalizing [US] immigration policy?" Other relevant survey questions address undocumented migrants' access to public services and government spending on border security. We construct $\text{Ethnocentrism}_{jt}$ by standardizing survey responses such that 1 reflects pro-immigration sentiment and 0 reflects anti-immigration sentiment. We use kernel-weighted local polynomial smoothing to aggregate the anti-immigrant sentiment for each state-year. This technique attenuates measurement error arising from different sample sizes across states and combining responses across different questions.

We control for several state characteristics that influence foreign firms' location decisions.[10] Agglomeration—the geographic clustering of FDI—can be relevant to location choice (Bobonis and Shatz 2007; Head, Ries, and Swenson 1995, 1999). We include a one-year lag of greenfield investment and the number of foreign acquisitions of existing US firms.[11] Both variables also control for unobserved and time-varying aspects of states' attractiveness to foreign firms.

2. See the appendix, available online, for detailed discussion of these mechanisms.

3. See Pandya (2016) for a review.

4. A few studies analyze subnational FDI flows (Bobonis and Shatz 2007; Buch, Kleinert, and Toubal 2006; Foad 2012; Friedman, Gerlowski, and Silberman 1992; Kandogan 2012), although none consider political economy factors.

5. The sample excludes 2011 because of insufficient polling data. Otherwise greenfield FDI data availability dictated the sample period.

6. Logs attenuate outliers. We add one to all observations to preserve observations equal to zero.

7. We also estimate ordinary least squares models and obtain consistent results (see the appendix).

8. Findings are also robust to inclusion of year fixed effects (see the appendix).

9. All data are from the Roper Center iPoll database. See the appendix for further details.

10. See the appendix for data sources and summary statistics.

11. We measure number of acquisitions because valuation data are not consistently available. Greenfield FDI and foreign acquisitions are rarely substitutes (Nocke and Yeaple 2007).

A variety of state economic traits are salient to foreign firms' location decisions.[12] We control for general economic characteristics with the log of annual gross state product per capita. Dependence on natural resources—minerals as a percentage of gross state product—controls for a state's propensity to receive natural resource sector FDI. This sector lacks location flexibility, so foreign investors have less scope to consider ethnocentrism. Transactions costs, measured by the number of free trade zones in a state-year and the annual volume of international air passenger traffic in each state's airports, may also factor into firms' decisions.

State labor market characteristics drive firms' calculations of production costs.[13] We control for states' annual unemployment rate and the average hourly wage.[14] Inclusion of the state poverty rate accounts for economic drivers of ethnocentrism. We also control for the share of college graduates as a percentage of the state population because firms locate in states with high human capital and more highly educated populations exhibit less ethnocentrism (Hainmueller and Hopkins 2014). Additionally, we control for the annual share of a state's population that is foreign-born in case the existing concentration of immigrants within a state drives sentiment toward immigrants. This variable also controls for unobserved time-varying state characteristics that influence a state's appeal to foreigners.

Table 1 reports our empirical results. In our baseline model (model 1) ethnocentrism has a negative and statistically significant coefficient. Holding all variables at their means, a state receives on average $889 million in annual greenfield FDI. A 1 standard deviation rise in ethnocentrism—from Washington state (mean) to Maine (1 standard deviation above the mean) levels—corresponds to $229 million less annual greenfield FDI on average.[15] Using fdiIntelligence data on jobs created via greenfield FDI, we estimate that a 1 standard deviation rise in ethnocentrism costs 180 jobs per state-year on average.[16]

Table 1. Tobit Models of Greenfield Investment

	Model 1	Model 2
Ethnocentrism$_{j,t}$	−2.017***	−1.836**
	(.718)	(.727)
Log(greenfield)$_{j,t-1}$	−.163**	−.142*
	(.0792)	(.0840)
Number of foreign acquisitions$_{j,t}$	.00914*	.00455
	(.00532)	(.00430)
Log(gross state product per capita)$_{j,t}$	−3.830	−2.743
	(2.664)	(2.556)
College educated/state population$_{j,t}$	−3.942	8.780
	(21.83)	(22.23)
Unemployment rate$_{j,t}$	−.0379	−.0830
	(.0760)	(.0723)
Number of free trade zones$_{j,t}$	.0918	.0721
	(.226)	(.232)
Minerals/gross state product$_{j,t}$	13.24	12.80
	(13.80)	(13.44)
Average hourly wage$_{j,t}$	5.872**	4.440*
	(2.373)	(2.307)
Poverty rate$_{j,t}$	−.0399	.0111
	(.0639)	(.0583)
Foreign-born/state population$_{j,t}$	−24.38	−18.70
	(43.75)	(43.66)
Number of foreign air passengers$_{j,t}$	−.0500	.213
	(1.213)	(1.265)
Number of anti-immigrant bills enacted$_{j,t}$		.175
		(.149)
Percentage of Democratic state House seats$_{j,t}$		6.065**
		(2.428)
Percentage of Democratic state Senate seats$_{j,t}$		−.421
Observations	381	374

Note. Tobit coefficients estimated via maximum likelihood, with robust standard errors (in parentheses) clustered by state. The dependent variable is log(greenfield) into state j at time t. State fixed effects are included, but their coefficients are not reported.
* $p < .10$.
** $p < .05$.
*** $p < .01$.

Ethnocentrism's effect is robust to the inclusion of a variety of state-level characteristics discussed above that could determine FDI flows or sentiment toward immigrants. We estimate an expanded model (table 1, model 2) to further flesh out these results. State immigration laws can also be a strong signal of ethnocentrism. States' legal authority on immigration is limited to undocumented migrants, so state immigration laws do not otherwise affect foreign firms. We oper-

12. Data on states' investment incentives are unavailable, but incentives rarely drive firms' location decisions (Head et al. 1999; Jensen et al. 2014, 2015).

13. Results are robust to controls for unionization (see the appendix). Labor laws are fixed during the sample.

14. We are agnostic as to the sign of these coefficients. Firms want to minimize costs, but higher wages typically correspond to greater productivity.

15. We estimate the loss of investment as $e^{\ln(.57)} - e^{\ln(.39)}$, where .39 = mean of ethnocentrism and .57 = 1 standard deviation above the mean. We verify that our estimates are not biased because of the skewed distribution of greenfield FDI, by reestimating the baseline as a Poisson model (counts of FDI dollars). These estimates are consistent with our baseline results and produce an even larger marginal effect; a 1 standard deviation increase in ethnocentrism yields approximately $356 million less greenfield FDI. See the appendix for model estimates.

16. We estimate our same baseline model but with the number of jobs created by FDI as the outcome. See the appendix for model estimates.

ationalize laws as the number of anti-immigrant laws passed in the preceding legislative session. We classify anti-immigrant laws as laws that restrict undocumented migrants access to public services or benefits, including documentation requirements for driver's licenses and employment eligibility. Inclusion of this variable does not change our core finding. The partisan composition of state government may also indicate partisan cuing of ethnocentrism. We include measures of the share of state house and senate seats held by the Democratic Party. We find that the percentage of Democrat-held state house seats correlates with more greenfield FDI, but ethnocentrism continues to have a strong and negative effect on greenfield FDI into US states.

Finally, we consider ethnocentrism's effects on foreign acquisitions as a placebo test to verify that unobserved characteristics of FDI do not drive our finding. We use our baseline model specification to estimate the number of foreign acquisitions per state-year and find that ethnocentrism does not correlate with this other form of FDI, for which investors lack location flexibility.[17]

CONCLUSION

National identity does more than shape policy preferences about economic integration; it directly influences the depth of integration. We show that ethnocentrism deters foreign investors by linking anti-immigrant sentiment to less greenfield FDI, an otherwise exceptionally popular form of global economic integration. Political economy scholars can further explore ethnocentrism's direct effects on economic integration through analysis of behavioral outcomes linked to national identity, including purchases of foreign goods, cross-border allocation of asset portfolios, and foreign tourism.

Our findings also help establish the economic costs of ethnocentrism-based electoral strategies. Across industrialized countries, politicians advance platforms that link migrants to a variety of social and economic ills. Such platforms exacerbate poor economic conditions by deterring foreign investors who create new jobs and enhance overall economic performance.

ACKNOWLEDGMENTS

We received valuable feedback from two anonymous reviewers and David Andrew Singer and at the 2013 American Political Science Association meeting, 2014 International Studies Association Meeting, and the Texas A&M Labor and FDI conference.

17. See the appendix for results.

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