Resident Networks and Firm Trade*

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ABSTRACT

We demonstrate that simply by using the ethnic makeup surrounding a firm's location, we can predict, on average, which trade links are valuable for firms. Using customs and port authority data on the international shipments of all U.S. publicly-traded firms, we show that firms are significantly more likely to trade with countries that have a large resident population near their firm headquarters. We use the formation of World War II Japanese Internment Camps to isolate exogenous shocks to local ethnic populations, and identify a causal link between local networks and firm trade. We also show that firms are more likely to acquire target firms, and report increased segment sales, in countries to which they are connected. Firms that exploit their local networks also see significant increases in future sales growth and profitability. In sum, our results document a surprisingly large impact of immigrants' role as economic conduits for firms in their new countries.

JEL Classification: F16, F30, G14

Key words: Information networks, trade links, firm behavior

Firms buy and sell goods in a global marketplace. Nearly half of all sales for S&P 500 firms, for instance, come from abroad. Understanding how firms differentially navigate this marketplace is critical to identifying which firms will ultimately succeed, and how investors should allocate capital amongst these firms. Success in this global setting depends not only on the goods or services that firms can provide, but also on the various networks that firms can access.

In this paper we investigate one possible network that firms can utilize in deciding how to access and exploit foreign markets. Specifically, we exploit variation in ethnic population breakdowns across metropolitan statistical areas (MSAs) in the U.S, and investigate whether local residents' ties to their home-countries can play a role in creating important bilateral country linkages for firms headquartered in these areas. We show that local resident networks have a first-order impact on each of the primary ways in which corporations operate globally, from trade decisions with other firms, to international mergers and acquisition (M&A) activity, to selling products in foreign markets through segments established abroad.

We focus primarily on micro-level import and export data collected from customs and port authorities, which allows us to link individual firms' trade decisions to their closely surrounding resident populations. This enables us to isolate the firm-value consequences of using these resident networks. In doing so, we find strong evidence that exploiting these networks has large value implications for firms in terms of sales, profits, and firm values, across the entire sample of U.S. publicly traded firms for a nearly 20-year sample period.

Because location decisions of residents are themselves influenced by firm-level trade activity and the factors that cause trade activity, there is a natural confound regarding the impacts of resident location with the factors that cause these locations to change. To address this endogeneity issue, we identify a group of exogenous changes in population residence, and show that these exogenous residents have a large and significant impact on firm level trade decisions, and on the value of these decisions to the firm. Our exogenous event comes from the forced relocation of Japanese and Japanese-Americans into Japanese Internment Camps during World War II. These internment camps were established throughout the country to house Japanese and Japanese-Americans originally from the West Coast who were relocated to camps following the bombing of Pearl Harbor in 1941. The camps represented a sizable shock to the Japanese populations surrounding them. To get an idea for the size of the shock to Japanese population, in the 1940 census (pre-Internment Camps), the Japanese population of Arkansas was 3 people. Arkansas was then a site of two internment camps – a shock of over 17,000 Japanese residents into the state. This shock had an enduring impact on these areas as many internees ultimately settled around these camps, having no home or work to return to after the war ended. We find that these Internment Camp locations had significantly higher Japanese populations, and that MSAs that surrounded WWII Japanese Internment Camps have significantly higher Japanese populations *today*. Specifically, their Japanese populations are roughly 3 times (t=9.19) that of MSAs that did not house Internment Camps.

A further piece of evidence supporting the tie brought by this exogenous location is that the MSAs surrounding WWII Internment Camps have a peculiarly large number of sister cities with Japan today. In fact, the areas surrounding these Internment Camps have over 3 times (t=4.34) as many sister cities to Japan as similar cities throughout the rest of the US. Additionally, as a placebo test, we examine the growth of other Asian ethnicities in the exact same locations surrounding Internment Camps. We find no growth of these other Asian populations surrounding the Camps at this time, nor is there any significant connected population to other Asian countries in these surrounding areas today. Taken as a whole, for any unobservables story to be the true driver of the future changes in Japanese population growth that we document, the unobservable would have had to attract *solely* the Asian population from the Japan – not China, Korea, etc., *solely* at the precise time of the internment camps (as we show a significant shock to Japanese populations exactly from 1940 to 1950), and in these MSAs *solely* on Japanese population (not on any of the other observables we measure such as manufacturing establishments, wages, or population density, which grow identically in these internment MSAs to pre-matched MSAs). We think the sum of our evidence and explorations around these Japanese Internment Camps points strongly toward the significant Japanese population shock that the internment camps caused as being exogenous shocks, rather than due to a plausible time-, ethnic-, and location-specific unobservable.

We then show that these exogenously-placed Japanese populations have a large impact on the trade decisions of firms in the surrounding areas, an impact which persists through today: firms in MSAs surrounding Internment Camps import and export significantly more to Japan today than other firms. In terms of magnitude, a one standard deviation increase in exogenous Japanese population increases exports by 40.6% (t=4.73) and imports by 54.1% (t=5.09).

We show that our findings extend across the entire universe of US firms and firm-country trade destinations, over a nearly 20-year sample period. To do so, we exploit novel import and export data collected through public records that must be reported by shippers, and then made publicly available through customs and port authorities. We use this data to ask the question of whether there are strategic trade decisions that a firm can make, given the immigration patterns that result in concentrated ethnic populations close to certain firms. We measure firm-country information networks as the share of residents in a firm's headquarter MSA that have the same ethnicity as the country to which the firm is exporting/importing (a variable we call "Connected Population"). We find evidence that firms export more to (and import more from) countries with which they have stronger information links. Specifically, we show that a one standard deviation increase in Connected Population increases the amount the firm exports to (imports from) a country by 63%, t=7.50 (34%, t=7.64).

Importantly, we show that this increased exporting (and importing) through information networks provides a tangible benefit to the firm in terms of increased sales and increased profitability. Specifically, when we define a "strategic exporter" as a firm that exports to a country to which it has a large connected population (and a "non-strategic exporter" as a firm that exports the same amount to that *exact* same country but does not have a large connected population - for instance, two firms exporting identical amounts to China, with the only difference being the existence of a connected population to the exported country), we find that strategic exporters significantly increase their future profitability (EBITDA/Assets) relative to non-strategic exporters by roughly 11%.

We also find that the effect of networks in international transactions is not confined to imports and exports. In addition to trade behavior, we show that resident networks have large and significant effects on M&A activity and segment sales in the connected countries. For example, in M&A deals, these firms are significantly more likely to purchase target firms in these same countries to which they are linked through their local resident networks. Moreover, using information disclosed in segment filings, we show that firms are more likely to have an international presence in countries that have an ethnic concentration around their firm headquarters.

Next, we explore in more depth the exact manner in which the information is transferred across the network, and thus profitably used by firms. While we cannot obtain the ethnic make-up of the entire employee base, we do collect the ethnic makeup of the entire board of directors (including top management) for all firms in our sample. From this data, we can identify one channel, through the board of directors, that this information network may be utilized. We first show that local ethnic population is a strong predictor of a board's ethnic make-up (i.e., if there is a larger Chinese population in a given firm's MSA, the exporting/importing firm's board is significantly more likely to have Chinese board members). We then find that when a strategic importer (exporter) has a connected board member on its firm board, it trades significantly more with the connected country. For instance, firms export 68% more than the median firm (t=4.07) to countries from which they have a connected board member.

Finally, we also run a number of tests to better establish the potential mechanism behind our findings. We expect that when these connections are more valuable, we should see these connections more heavily utilized. We test this idea by looking at tariff controls between the US and a given connected country for a given product. Consistent with lower (higher) tariffs increasing (decreasing) the value of the network connection, we see significantly more strategic trading by firms (i.e., importing from the country of the connected population) where US import tariffs are lower. In addition, we show that the benefits of networks are more pronounced when importing differentiated products (products that are not traded over organized exchanges). These findings are consistent with the variation in the value of the network causing variation in strategic trading. Lastly, using micro-level data on the estimated values of the shipments in our trade data, we provide evidence that firms are able to extract higher prices on their exports to connected countries (and also present suggestive evidence of lower import prices through connected board members), which helps to explain why connected trading is more profitable for firms.

The remainder of the paper is organized as follows. Section I provides a brief background and literature review. Section II describes the data, while Section III documents the impact of the surrounding connected population on firm-level import and export decisions. Section IV provides evidence of a causal link using the formation of the Japanese Internment Camps of World War II as exogenous population shocks. Section V establishes the returns to strategic importers and exporters that utilize these connected information networks, while Section VI documents other business transactions that firms engage in with countries linked by local population. Section VII concludes.

I. Background and Literature Review

Our paper contributes to the literature investigating the drivers and implications of international trade on firm operations and values. Bernard et al. (2007) argue that, when investigating the causes and implications of international trade, the literature emphasizes several factors including comparative advantage, increasing returns to scale and consumer preference for variety, but focuses less on the firms that actually drive trade flows. They show that firms that export differ substantially from firms that solely serve the domestic market in several dimensions: across a wide range of countries and industries, exporters have been shown to be larger, more productive, more skill- and capital-intensive, and to pay higher wages than non-trading firms.

In particular, we add to the literature on the role that networks and informational barriers play in impacting international trade. For example, Rauch (1999) argues that informational barriers play a key role in hampering trade, and shows that geographic proximity is more important for trade in non-homogenous (i.e., differentiated) goods.[1] Meanwhile Chaney (2012) develops a theoretical model where firms only export to countries where they have a contact, and he provides empirical evidence that this model is consistent with the dynamics of trade in France.[2] Finally, within-country evidence also examines measures of social networks and trade; for example, Combes, Lafourcade and Mayer (2005) explore networks and trade between regions within France; Garmendia, Llano, Minondo and Requena (2012) examine social and business networks and the extensive margin of trade in Spain; and Burchardi and Hassan (2013) find West German regions that have closer social links with East Germany grew faster and invested more into East Germany after the German reunification.[3] Again, our main contribution to this literature is through our unique identification of exogenous residents surrounding firms, thus firmly establishing the causal mechanism missing heretofore in the literature.

More importantly, our research adds to the literature analyzing the strategic entry mode choices of firms seeking to expand their businesses to overseas markets. According to Agarwal and Ramaswami (1992), these choices include exporting, joint venture, licensing, and direct investment. The underlying theme in this literature is that few companies can afford to do business in all countries at the same time; therefore firms should weigh the relative advantages of these entry modes in different regions of the world. The early marketing literature that provides normative guidelines on the process of internationalizations include Cavusgil and Nevin (1981) and Green and Allaway (1985), among others; whereas recent research on the topic focuses on the consequences of entry mode on firm operations. For example, Pan, Li, and Tse (1999) show that early entrants have significantly higher market shares and profitability than late followers. In addition, several papers investigate whether cultural proximity of foreign markets to local markets affects entry timing and mode, and find conflicting results. For example, the findings in Mitra and Golder (2002) suggest that cultural

[1] See also Gould (1994), Rauch (2001), Rauch and Trindade (2002), and Casella and Rauch (1998) for theory and evidence on information-sharing networks among internationally dispersed ethnic minorities.

[2] For broader evidence on the impact of firm-level networks, see Hidalgo, Klinger, Barabási and Hausmann (2007) for evidence on how the network connectedness of products impacts country-level development, and Acemoglu, Carvalho, Ozdaglar and Tahbaz-Salehi (2012) for evidence that microeconomic idiosyncratic shocks can be transmitted through supplier-customer links and impact aggregate volatility in the economy.

[3] See also Falck, Guenther, Heblich, and Kerr (2013) who analyze the movement of the machine tool industry from the Soviet zone of post-war Germany to western regions in the wake of World War II.

distance to domestic market is not a significant factor in entry timing; whereas Loree and Guisinger (1995) argue that it is. Relatedly Dinc and Erel (2013), Ahern et al. (2012), and Erel et al. (2012) focus specifically on cross-border M&A activity, and find that variables such as country-wide geographic and cultural distance play a role. Our paper demonstrates that local resident populations around the headquarters of a firm significantly impact the bilateral trade relations to connected countries, along with international M&A decisions and international segment sales. We also show that board members who are connected to trade partners through their nationalities provide information advantages that generate value for firms.[4]

II. Data

We obtain data from several sources. Our international trade data comes from Journal of Commerce's Port Import Export Reporting Service (Piers), a subsidiary of UBM Global Trade. Piers collects "bill of lading" level import and export data from three major sources: U.S. Customs and Border Protection Automated Manifest System, Piers' own reporters located in 88 major ports in the U.S., and foreign partners whose national Customs authorities provide comparable data. A bill of lading is a legal document between the shipper and the carrier that outlines the type, quantity and destination of the good being carried. Our data include standard information provided on the bill of lading and value added fields such as content (6 digit Harmonized System Code level[5]) and the value of the cargo, both of which are estimated by Piers. We match Piers data to public firm names by shipper (for exports) and receiver (for imports) firm

[4] Our paper is also related to a large literature on limited attention, as evidence in Appendix Tables A13-A16 shows that market participants respond to resident network-related value creation with a delayed reaction. In economies populated by investors subject to binding attention and resource constraints, delayed information flows may lead to expected returns that are not explained by traditional asset pricing models (e.g. Merton (1987), Hong an Stein (1999), and Hirshleifer and Teoh(2003)). Subsequent empirical studies find evidence consistent with predictions of these models (see, Huberman and Regev (2001), Barber and Odean (2006), DellaVigna and Pollet (2006), Hou (2006), Hong, Torous, and Valkanov (2007), Cohen and Frazzini (2008), Huang (2011), Cohen and Lou (2011), Cohen, Diether, and Malloy (2011), and Nguyen (2011).

[5] Harmonized System (HS) is an internationally standardized system of names and numbers for classifying traded products. It is developed and maintained by the World Customs Organization (WCO).

names using hand-matching along with name matching algorithms. Piers data start in 1994 and go through 2010, which defines our main sample period in the paper. Panels A and B of Table I report the firm characteristics of public firms that import and export, and Panel C of Table I provides industry breakdowns of exporters and importers. Appendix Table A1 provides the analogous firm characteristics for non-importers and non-exporters. Table II reports the top 5 destination and target ports for imports and exports.[6]

We obtain local ethnicity data as follows. We use metropolitan statistical area (MSA)-level population data drawn from the American Communities Project (ACP), provided by Spatial Structures in the Social Sciences at Brown University.[7] The Census Bureau uses a standard set of definitions of the area included in each MSA. In most cases an MSA includes both a central city (or sometimes two or more central cities) and the ring of surrounding suburbs. ACP data contain data for 331 MSAs. To match MSA to zip-codes of firm headquarters, we use Census U.S. Gazetteer files for 1990 and 2000.[8]

Unlike Census data, ACP data help identify the national origins of Hispanic and Asian ethnicities. ACP data allows us to disaggregate Hispanic ethnicities to 19 nations and Asian ethnicities to 7 nations. In cases where we cannot map a given nation that exists in the export/imports files, we use the mapping in ethnicity to identify a nation that is more likely to proxy for population of that nation's presence in the U.S. For example, we use Filipino population figures to proxy for Philippines, Thailand, Indonesia, Cambodia and Malaysia. Appendix Table A2 presents our country-to-MSA population mappings; we map countries to global geographic regions in this table as well.

In various robustness tests, we also use coarser definitions of ethnicity drawn directly from the 1990 and 2000 U.S. Census, and which are available at the state level.

[6] According to U.S. Customs and Border protection rules, importers may request their company name not to be disclosed on vessel manifests, and on occasion Regulations and Rulings, Privacy Branch of U.S. Customs and Border protection grant these requests for a period of two years. (http://www.gpo.gov/fdsys/pkg/CFR-2009-title19-vol1/pdf/CFR-2009-title19-vol1-sec103-31.pdf).
Our sample, thus, does not contain these firms. Upon inspection of our sample, we find out that almost all large firms appear to exist in our sample without a two-year consecutive break in the database, which suggests firms that constitute the majority of the import activity have not applied for custom's privacy protection throughout the sample period.

[7] http://www.s4.brown.edu/cen2000/data.html.

[8] http://www.census.gov/geo/www/gazetteer/gazette.html.

The ethnicity information in these Censuses are based on self-identification questions in which residents choose their origin(s) or descent(s). Appendix Table A3 presents these country-to-state-level Census ethnicity mappings.

For some tests we also determine the nationality of corporate board members (and top management) using biographical information provided by BoardEx of Management Diagnostics Limited, a private research company specialized in social network data on company officials of US and European public and private companies.

Finally, we obtain Harmonized System Code (HS Code) level tariff information from the TRAINS dataset provided by the United Nations Conference on Trade and Development (UNCTAD). A typical entry in this dataset is as follows: In the year 2003, U.S. applied a 4% tariff rate for Brazil nuts (HS Code 080120) to Brazil. Tariff information contains not only most favored nation (MFN) tariff rates, but also, rates agreed upon in various preferential regimes including *regional trade agreements* (RTA), *preferential trade agreements* (PTA) and bilateral agreements. If tariff data is missing for a particular importing country in a particular year for a given HS code, we use the most recent values as major tariff changes take place very infrequently.

III. The Impact of Resident Networks on Firm-Level Trade

A. Import and Export Decisions of All Firms across All MSAs

We first test the hypothesis that firms export more to (and import more from) countries with which they have stronger information links. We measure firm-country information networks as the share of residents surrounding a firm's headquarters that have the same ethnicity as the country to which the firm is exporting/importing (a variable we call "Connected Population"), where we use the fine measure of Metropolitan Statistical Areas (MSAs) to define surrounding area (with an analogous state-level measure included in Appendix Table A4).

The dependent variable in our tests is a firm's import/export behavior in a given year. Specifically, for each firm in each year we compute its "Export Ratio" as the total amount that a given firm exports to a destination country (c) in a given year scaled by the total amount of exports by the firm in that year (E_{ict} /Sum(E_{it})).[9] We define "Import Ratio" analogously for imports. All export and import figures are converted to U.S. dollars, and represent the dollar value of exports and imports by a given firm.

In Table III we present results from a panel regression of firm-level export and import behavior on firm-country resident networks, plus a host of fixed effects. The unit of observation in these regressions is firm-country-year, and all standard errors are clustered at the year level to broadly allow for any correlations that impact all firms over a given year (i.e., tariff changes, conflicts, shipping blockages, etc.). Panel A presents the results with Export Ratio as the dependent variable; each specification shows that Connected Population (CP_{ct}) is a positive and significant predictor of a firm's country-level export share. Columns 1-7 include a variety of fixed effects (e.g., year, region, MSA, MSA x year, MSA x region, country, and firm x year), with the coefficient on Connected Population remaining large and significant. Column 3 represents our preferred specification, and includes destination region fixed effects, state-year fixed effects, MSA fixed effects, and a host of MSA-level control variables; this specification ensures that our results are not induced by differences in openness/trade-concentration across MSAs.[10] The control variables included at the MSA-year level are literacy rate, unemployment rate, the number of manufacturing establishments per 1000 people, full-time and part-time payroll per person for retail establishments, and population density at the MSA-level.

In terms of magnitude, the coefficient of 0.039 (t=7.50) on CP_{ct} in Column 3 implies that for a one-standard deviation increase in CP_{ct}, a firm's Export Ratio increases by 1.30%; relative to median Export Ratio 2.06%, this implies a 63%

[9] If we instead scale by exports of all U.S. public firms to the given country in the same year, we also find strong and significant results. The magnitudes are actually quite close, on average roughly 4-7% larger than in Table III, while each analogous specification is highly statistically significant ($p<0.01$).

[10] We have run these analyses also clustering standard errors at the firm level, MSA level, and state level, which give comparable standard errors, and all results remain significant. Appendix Table A5 also presents additional specifications for these regressions, and the results are robust to the inclusion of various other fixed effects (e.g., Firm x Region fixed effects). Appendix Table A6 also presents the results for a variety of alternate definitions of Connected Population, for example: a) using information on European nationalities to further refine the "white" category; b) excluding white ethnicity category entirely; and c) including ethnicity information on African nations; all of these specifications produce similar results.

increase.[11] In Column 5, we also investigate the extensive margin of exporting and find that a firm's connected population around its corporate headquarters is a significant predictor of a firm's likelihood of exporting to a given country.[12] A one-standard deviation increase in CP_{ct} increases the likelihood of exporting to a given country by 1.46%. Compared to the mean export extensive margin of 0.38%, this implies a sizable impact in economic magnitude at a nearly 5 times larger likelihood.

Panel B presents the identical set of tests using Import Ratio as the dependent variable. As in the export tests, we find that ethnic resident links are strong positive predictors of firm-level import behavior. The magnitude of this effect is again large: the coefficient of 0.066 (t=7.64) on CP_{ct} in Column 3 implies that for a one-standard deviation increase in CP_{ct}, a firm's Import Ratio increases by 1.05%, which translates into a 34% increase (when compared to the median Import Ratio of 3.14%). Furthermore, Column 5 implies that a one-standard deviation increase in CP_{ct} increases the likelihood of importing from a given country by 1.85%. Compared to the mean import probability of 3.22%, this again implies a sizable impact.

Of course one potential confounding factor when examining imports (as opposed to exports) is the issue of local demand-driven importing; the mere presence of a connected population might drive firms to cater to local preferences for home-country goods. To rule out a possible local demand channel, we rerun our analysis, but only for imports of products in industries that are unlikely to be affected by local demand, such as utilities and mining. Specifically, in Appendix Table A7 we focus only on the sample of imports from firms whose first two digits of the NAICS code are either 21 or 22 (i.e., Utilities and Mining industries): Column 2 of Table A7 shows that the impact of Connected Population on imports for these sectors is large and significant (=0.116, t=3.28), suggesting that local demand is unlikely to be driving our results. However, a more nuanced version of this story is that local demand could also affect exports if firms

[11] These results are even stronger if we break the sample of firms into highly concentrated firms (i.e., those that operate primarily in the state of headquarters--using the data from Garcia and Norli (2012) to classify firms in this way) versus more geographically dispersed firms: in particular, connected population is a significantly stronger predictor of exports for concentrated firms than for dispersed firms.

[12] These tests are constructed similarly to those in the other columns of Table III, except that here we include all possible trade partners in the world (whether or not the firm traded with these nations or not); if the firm did trade with this country, the left-hand size variable is a dummy variable set equal to one, and if not, the left-hand side variable is set to zero).

learn about the foreign country through their importing decisions, and then use this advantage in their exporting decisions. We examine this issue explicitly in the context of exports by re-running regressions in Table III but solely for the subset of firms that never import; we find identical results (coefficient=0.15, *t*-stat=3.36), suggesting that exporting firms are not simply "learning by importing."

B. Connected Board Members and Trade Decisions

We next explore in more depth the manner in which resident populations impact firm decisions. While it is impossible to obtain the ethnic make-up of the entire employee base of all firms, we do collect the ethnic makeup of the firm's entire board of directors (including top management--CEO, CFO, and Board Chairperson) for all firms in our sample. From this data, we can identify one specific channel, through the board of directors, that resident populations can influence firm behavior. These directors are involved with important firm-level decisions, such as the establishment and continuation of export and import relationships with foreign firms (Gevurtz (2004)). We first show that local ethnic population is a strong predictor of a board's ethnic make-up (i.e., if there is a larger Chinese population in a given MSA, the exporting/importing firm's board is significantly more likely to have Chinese board members). Specifically, the correlation between the percentage population from a certain country and having that country represented on the board of a firm in that MSA is highly significant (ρ=0.20, $p<0.01$).

The variable we use to capture the impact of this ethnic link seen through the top management and board of directors is Connected Board Member, which is a categorical variable equal to 1 if the firm has a board member whose nationality is the same as that to which the firm is importing (exporting), and 0 otherwise. From Panel A and Panel B of Table III, this connected board measure is a large and significant determinant of firms' trading decisions. For instance, in Column 7 of Panel A, the coefficient estimate of 0.016 (*t*=4.07) implies that a firm exports 68% more to countries from which it has a connected board member.

IV. Japanese Internment Camps of World War II

Although we have shown a strong correlation between surrounding ethnic population and trade activity, nothing up to this point has addressed the direct causal impact of ethnic population on import/export activity. This relationship could be driven by a number of factors and not necessarily by a direct causal channel from ethnic population to trade. For instance, it could be that groups of firms are simply bringing in the foreign population when they plan to import/export to the resultant country. It may also be that some outside factor is causing both people of a certain ethnicity, and firms planning to trade with their home country, to locate in the same location, but the ethnic population themselves have no direct impact on trade. One example of this is geographic distance. For instance, it is both easiest for Vietnamese immigrants to reach California (as opposed to New York), along with it being cheaper for California firms to ship goods to and from Vietnam (relative to a New York firm). Although we control for this particular channel in Table III, other types of these common attributes could drive both ethnic population and trade, but have no causal path.

In order to establish causality, we need exogenous variation, such as exogenously "dropping" firms in random locations, or exogenously "dropping" ethnic populations in random locations, and then running our tests to see if these exogenously matched firm-surrounding ethnicities produce the same impact. We run this latter experiment using the Japanese Internment Camps of World War II.

A. Japanese Internment Camps of World War II

In this section we exploit a natural experiment involving the Japanese Internment Camps of World War II in order to isolate the causal impact of local resident networks on firm-level trade. The Japanese Internment Camps were part of a program by the United States government to relocate and intern Japanese and Japanese-Americans following the attack on Pearl Harbor in Hawaii. The relocation stemmed from a worry[13] that if there was an invasion by Japan, these citizens might

[13] The order to create the camps and authorize the relocations themselves was Executive Order 9066, signed into law on February 19, 1942. Specifically, according to the Institute for Research of Expelled

work against US interests. The camps were established based on criteria laid out by the War Relocation Authority (WRA), which was established on March 18, 1942. In particular, the three criteria used were that the camp locations had to be: 1) limited to federally owned lands; 2) suitable enough to house from five to eight thousand people, and; 3) located, as the War Department required, "a safe distance from strategic works." The camps were constructed in 1942, and held nearly 120,000 Japanese and Japanese-Americans.[14]

The Internment Camps were distributed unevenly throughout the US, as shown in the Figure 1, with peak populations shown in the accompanying table. An additional important aspect of the relocations is that they represented substantial increases in terms of Japanese-origin population for states housing the relocation camps. To illustrate this, we collected data from the 1940 US Census for the states that had internment camps, and show this in Figure 1. From this data, for instance, Arkansas had only 3 people of Japanese descent in the 1940 census, compared to roughly 17,000 Japanese and Japanese Americans relocated to the Internment Camps in Arkansas. Accordingly, the number of Japanese that were interned in these camps represented a substantive shock to the total Japanese population in these states.

The camps were fully evacuated by 1946 (Burton et. al (2000)). However, prior to internment, many of these internees had to quickly sell their homes and other assets before leaving, as they were not sure what would happen to them, nor how long they were to be interned (Okamoto (2000)). Added to this, internees that did try to return to their former West Coast home-cities faced acts of violence and discrimination (Ina et al.

Germans, "After the bombing of Pearl Harbor in 1941, the United States government evicted nearly 120,000 residents of Japanese descent from the Pacific coast (Toye, 2008)... Almost seventy percent were American citizens who were either naturalized or born in the country (DiStasi, 2001). Simultaneously, the FBI orchestrated the transfer of 2,264 ethnic Japanese from Colombia, Peru, Chile, and Panama to camps in the United States (Friedman, 2002). At the same time, the US government surveilled, arrested, and interned at least 10,905 ethnic Germans and 288 Italians alongside the Japanese (Krammer, 1989). Almost the entire Japanese population was evacuated, including citizens and non-citizens. Although many German and Italian internees had US citizenship, the internment of European enemy nationalities focused on illegal aliens."

[14] There were three types of camps: 1) Civilian Assembly Centers were temporary camps where the detainees were sent as they were removed from their communities; 2) Relocation Centers, also known as internment camps, where detainees were sent following their temporary imprisonment at the Civilian Assembly Centers (we use these Relocation Centers as our instrument); 3) Justice Department detention camps, which hosted mainly German-American and Italian-American detainees in addition to Japanese-Americans.

(1999)). Both of these resulted in many internees resettling in the regions surrounding their Internment Camps (Ina et al. (1999)). Our identification comes from these internees who decide to remain, settle, and form communities in the regions around the Internment Camps.

First we formally establish the fact that the internees who decided to stay do materially impact the population of Japanese origin in the decades following, and particularly during our sample period. This first-stage regression is shown in Panel A of Table IV.[15] This panel tests whether the states that housed Internment Camps are those with large Japanese resident networks today. Specifically, we measure local resident networks as the share of the local population that is of Japanese origin ("Connected Population"). We define the relevant local population at the Metropolitan Statistical Area (MSA)-level. The independent variable Japanese Internment is a categorical variable indicating whether an MSA is within a 250 mile radius of an Internment Camp.[16] We also include a set of MSA-level control variables to these tests, including a West Coast Dummy (to capture all the MSAs along the western coast of the US that are closest in physical distance to Japan); the Population of the MSA in 2000; the Population of Other Non-Japanese, Asian Ethnicities (Korean, Chinese, Hindu, and Filipino population in an MSA, scaled by MSA population); Immigration from Asia (which measures the immigration growth from all other Asian ethnicities listed in the US Census--other than Japanese--from 1940 – 1990, which is before the internment to the beginning of our sample period); and Population Density (measured as the MSA's 1940 population (in thousands) scaled by the area of the MSA per square mile); we include these variables in both the first and second stages of the Table IV regressions. The idea of including the Immigration from Asia control, for instance, is that immigration may have been growing in general in all states over this time period, and

[15] These results are robust to a variety of different specifications. For example, if we define the relevant population at a (coarser) state-level (as in Appendix Table A4), as opposed to at the MSA-level, we find very similar results. Also, Appendix Table A8 provides additional specifications for these IV regressions, including clustering by MSA, and Appendix Table A9 shows the results for simple OLS specifications as opposed to the IV approach.
[16] Results are similar if we use a 125-mile radius (which reduces the total treatment area by 75 percent) as well, as shown in Appendix Table A10. In addition, Appendix Table A11 shows results where we use a continuous measure (Japanese internment population as a share of the total MSA population) in place of this dummy variable, and the results are very similar in magnitude and significance.

for some reason these internment states may have been the recipient of a shock of immigration.

From Panel A of Table IV, we see that MSAs surrounding Japanese Internment Camps during World War II have a significantly higher fraction of Japanese origin connected population today.[17] Columns 1 and 2 run the test on the sample of firms that export to Japan (Column 3 explores the extensive margin for exports), while Columns 4 and 5 run the test on the sample of firms that import from Japan (Column 6 explores the extensive margin for imports. All six columns deliver this same message.[18] Columns 2 and 4 include an additional control of *Immigration from Asia*, which measures the immigration growth from all other Asian ethnicities listed in the US Census (other than Japanese) from 1940 – 1990 (before the internment to the beginning of our sample period).[19] The idea of including this control is that immigration may have been growing in general in all states over this time period, and for some reason these internment states may have been the recipient of a shock of immigration. From Column 2, the coefficient of 0.0012 (t=9.57) on Japanese Internment implies an over 62% larger current Japanese population in areas surrounding Japanese Internment Camps of World War II relative to areas without. The Column 4 coefficient of 0.0089 (t=30.88) on Japanese Internment implies a difference of over 4.1 times as large.

This provides strong evidence for the first stage of the instrumental variable test. For the second stage, we then regress firm-level trade activity today on this instrumented value of connected population to see its impact. In other words, we examine the impact on trade activity of *solely* the part of the Japanese connected population today that was determined by having (vs. not having) a Japanese

[17] We run these tests at the trading firm level (importing or exporting) – i.e., the same sample on which we run the second stage on trade decisions. In Table V, Panel A we run the same regression on the pure cross-section of MSAs and find equivalently strong results in terms of magnitude and significance.

[18] We have also run an additional test where we examine whether the Japanese population surrounding the camps increased *directly* following the dissolution of the camps. Specifically, we run state-level regressions of the change in Japanese population (scaled by state population) from 1940 to 1950 on Internment Camp population (scaled by state population) for all states except Hawaii and Alaska (which did not become states until 1959). We find an economically large and statistically significant increase in the Japanese population in these areas directly after the camp closures (consistent with the first-stage results on connected population in 1990 in Panel A of Table V). We show these results in Panel B of Appendix Table A12.

[19] For an image copy of the full 1940 census instructions, see http://1940census.archives.gov/downloads/instructions-to-enumerators.pdf.

Internment Camp in the surrounding area in World War II. The dependent variable in these second stage regressions is a firm's import/export behavior in a given year. Specifically, for each firm in each year we compute its "Export Ratio" as the total amount that a given firm exports to Japan in that year scaled by the total amount of exports by the firm in that year (E_{ict} /Sum(E_{it})). We define "Import Ratio" analogously for imports. All export and import figures are converted to U.S. dollars, and represent the dollar value of exports and imports by a given firm.

These second stage regression results are shown in Panel B of Table IV. All four columns show that this instrumented connected population has a large and significant impact on firm-level trade activity today. The coefficient on Connected Population is large and significant across all specifications, including at the extensive margin, for both imports and exports, and with or without controls. The implied magnitudes in Table IV are comparable to the baseline regressions presented earlier in Table III, for the entire sample. Specifically Column 1 of Table III (Panels A and B), which includes year and region fixed effects, is the most analogous specification to the baseline specification in Columns 1 and 4 of Table IV Panel B. The implied magnitude in Column 1 of Table III Panel A, for exports, is 37.9%; and in Column 1 of Table III Panel B, for imports, is 34.6%. Meanwhile, the implied magnitude of the instrumented Connected Population effect here in Column 1 of Table IV Panel B is 40.6% for exports; and is 54.1% for imports (from Column 4 of Table IV Panel B). These results suggest that the relative magnitudes are quite comparable across the two sets of tests. Finally, in terms of the extensive margin magnitudes, the coefficient of 1.762 (t=4.77) on CP_{ct} in Column 3 of Table IV Panel B implies that for a one-standard deviation increase in instrumented CP_{ct}, a firm's Export Ratio increases by 0.66%. Compared to the mean export extensive margin of 0.63%, this implies a sizable impact in economic magnitude at more than a 100% larger likelihood. The coefficient of 1.060 (t=4.30) on CP_{ct} in Column 6 implies that for a one-standard deviation increase in instrumented CP_{ct}, a firm's Import Ratio increases by 0.49% which corresponds to a 90% increase relative to the mean Import Ratio 0.54%.

B. Placebo Tests and Corroborating Evidence

The Japanese Internment Camps of World War II appear to have had long-lasting impacts on their surrounding areas. In Table V we explore these impacts further with a number of corroborating pieces of evidence. First, many cities in the states housing the Internment Camps to this day have organization chapters that serve former internees and their children (Ina et al. (1999)). Second, to get another measure of long-lasting ties to Japan, we gather the list of all sister cities to United States cities.[20] In Panel A of Table V, we then run a simple regression of the number of sister cities with Japan of a given MSA on Japanese Internment (whether or not the MSA had an internment camp during WWII). We collapse this analysis at the MSA level, and use the 291 MSAs that have reported census data on ethnicity going back to 1940, so there are 291 observations in this regression. From Panel A of Table V, while the average MSA without an internment camp had 0.36 sister cities in Japan, those with an internment camp had 3.5 times as many, 1.26 Japanese sister cities. Despite the small sample of only 291 MSAs, this large difference of 0.90 cities is significant (t=4.34). In columns 2 and 3 of Panel A, we also show that this sister city result is robust to the inclusion of controls for the local population of other Asian ethnicities (Korean, Chinese, Hindu, and Filipino population in an MSA, scaled by MSA population), as well as the total MSA population as of 2000.

We then run a placebo test for our main analysis. If the areas that the camps were located in were also centers of attraction for immigration that happened after WWII, then it is possible that our instrument is essentially capturing the variation in growth of immigration across MSAs, rather than the presence of Japanese population caused by the Internment Camps. However, if our Japanese Internment variable is truly capturing something unique about the lasting link solely to Japan, then we should only see it having a predictive ability for Japanese population concentration. To run this test, we compare the ability of our Japanese Internment variable to predict Japanese linked population connections versus those of all other Asian ethnicities reported in the

[20] This data was gathered from http://www.sister-cities.org/.

census other than Japanese (specifically, as coded by the census: Korean, Chinese, Hindu and Filipino).

From the fourth column in Panel A, when we collapse our analysis at the MSA level and run a pure cross-sectional regression, we continue to see a strong and significant relationship between Japanese Internment Camps and Japanese linked population decades later.[21] In Column 5, we include the control variables of MSA population along with a West Coast dummy to capture all the MSAs along the western coast of the US that are closest in physical distance to Japan; our estimates remain large in magnitude and significant after the inclusion of these variables. In Column 6, we then run the placebo-test examining the same link (Japanese Internment Camps) for other Asian ethnicities. In contrast to the Japanese population impact, we find a nearly zero and statistically insignificant impact of having the Japanese Internment Camps during WWII on non-Japanese Asian population today.

C. Further Evidence on the Instrument

In this section we further confirm that the location of Internment Camps is orthogonal to anything which could plausibly affect trade with Japan other than the settlement of the Japanese population. To do so we test whether the MSAs where Japanese internment camps were located are different (or grew differently) from comparable MSAs across a variety of measures (e.g., urbanization) that might be related to trade with Japan. We find comparable MSAs by employing a nearest-neighbor matching procedure: we match every Japanese internment camp MSA with three MSAs with the closest population density per square mile in 1940 pre-Internment Camps (total population scaled by area of MSA). The metrics we use to compare MSAs are literacy (population 7 to 20 years of age attending school scaled by total population), unemployment (percentage of the population out of a job, able to work, and looking for a job), number of manufacturing establishments per one million people, and payroll per person (Full-Time and Part-Time payroll of retail establishments).

[21] In Panel A of Appendix Table A12 we show that the second-stage results using the instrumented values from this pure cross-sectional test are very similar in magnitude and significance to those reported in Table IV.

Panel B of Table V shows that across all of these measures, the Japanese internment camp MSAs are not significantly different from the population density-matched MSAs, both in the pre-war period (using either the 1930 or 1940 censuses), or as of 1990. In Panel C we also test whether the *future* population densities are different between the Japanese internment camp MSAs and comparable MSAs, when the MSAs are matched by 1940 (pre-Internment Camp) population densities, and again find no statistically significant differences. Similarly, we examine the firm-level characteristics of the firms treated (and not treated) by the instrument. In particular, we compare the firms that trade with Japan and are treated by the instrument to firms making the identical trade decision who are untreated (the firm sample used in Table IV). From Table V, Panel D, the firms that are treated are quite similar across a variety of firm-level characteristics to those firms that are untreated by the instrument. Lastly, we examine the importance of Japan more generally as a trading partner in Panel E of Table V. From this panel, of all US international shipping partners, Japan is actually the largest source of imported goods for publicly yarded firms over the sample period (averaging 11.38% of all imports per year). It is also the third most important for exports, averaging 6.19% of exports over this time period.

In sum, given the whole of the analysis that we have done, for any unobservables story to be the true driver of changes in Japanese population growth, the unobservable would have had to attract solely the Asian population from the Japan – not China, Korea, etc., solely at the precise time of the internment camps (as we show a significant shock to Japanese populations exactly from 1940 to 1950), and in these internment MSAs solely on Japanese population (not on any of the other observables we measure such as manufacturing establishments, wages, or population density, which grow identically in these internment MSAs to pre-matched MSAs). Collectively, our tests involving these Japanese Internment Camps strongly indicate that the large Japanese population shocks caused by the camps were indeed exogenous shocks, rather than a plausible time-, ethnic-, and location-specific unobservable.

F. Firms Founded before World War II

As a last remaining concern, one might think that firms' location choices may still be impacted by the population ethnicities it observes. So, although the Japanese origin citizens are exogenously assigned, firms who plan to trade with Japan may be responding by deciding to establish themselves around Japanese population centers. In a sense, this is in line with our explanation, as firms' trade decisions are still impacted by the population ethnicity, and so given that part of that ethnic profile was exogenously determined, it would simply mean that even firm establishment locations are impacted by the same population ethnicities.

However, to more cleanly measure the impact of the exogenous population ethnicity on firm decisions, we examine only firms that were founded before the Japanese Internment Camp populations existed.[22] We thus restrict solely to firms founded before 1946, the year in which the Japanese Internment Camps dissolved and had released all internees. Although this obviously reduces the sample size, the same results from Table IV obtain. Namely, in unreported tests we find that the first stage regressions still have large and significant coefficients on the impact of Japanese Internment Camps on Japanese population today, with the second stage coefficients on instrumented Connected Population also being large and significant (despite the reduced sample size).

In summary, the main Japanese Internment Camp tests, the corroborating evidence, and the placebo tests all deliver a consistent message: namely that the Japanese Internment Camps were indeed an exogenously "dropped" population, and that this exogenously dropped population did indeed have a *causal* impact on trade decisions of firms.

[22] We obtain firm founding date data from the Field-Ritter Founding Date Dataset available at: http://bear.warrington.ufl.edu/ritter/FoundingDates.htm, as used in Field and Karpoff (2002) and Loughran and Ritter (2004).

VI. The Real Effects of Strategic Trading Activity

In this section we build on the results above, and examine to what extent firms benefit from using their firm-country networks in their import and export decisions. For example, one could imagine firms overweighting certain countries in their import and export decisions due to a form of familiarity bias; alternatively firms might tilt their trading focus as a result of benefits they receive (e.g., private information about local demand) from their resident networks.

We try to disentangle these possibilities by examining the future outcomes of firms that exploit their firm-country linkages in their trading decisions. We term these firms that exhibit strong links between their ethnic environment and their major trading partners as "Strategic Traders." The essence of our approach is to isolate firms that export primarily to countries where there is a match between the destination country's ethnicity and the firm's headquarter location's ethnic composition. Since each firm can have an export/import relationship with several different countries over the same time period, a goal of our approach is to identify firms that choose their export countries in line with their various resident linkages. Because some firms will trade with only one country across a given time period, and others will trade with many, the number of possible "informed" or "linked" shipments each month will vary by firm. As a result, we first create buy/sell signals (to denote "linked" versus "non-linked" shipments) based on a firm's export amount in a given month, its destination country, and the match between the destination country's ethnicity and the firm's headquarter MSA's (metropolitan statistical area) ethnic composition. We employ MSA-level ethnicity shares, and match these to destination countries as shown in Table A2. In every year for each MSA, we compute the share of each ethnicity that resides in each MSA. We then rank the share of each ethnicity across all MSAs in the US. The buy signal equals one if (i) a firm's share of total industry exports to a given country in a given month is ranked in the top 3,[23] and (ii) the firm is located in an MSA where the MSA's ethnicity share

[23] Our results are similar if we measure export intensity within-firm (e.g., using the "Top 3" export amounts within a given firm in a given month), or if we use industry export decile breakpoints (top decile) rather than a "Top 3" ranking. Additionally, our results are also virtually identical if we use firm-level export shares to a given industry rather than absolute amounts. For example, Firm A could export $100 worth of materials to Italy and $100 to Germany, while Firm could export $10 worth to Italy and $5

across all MSAs in the US is ranked in the top 3. The sell signal equals one if (i) a firm's share of total industry exports to a given country is ranked in the top 3, but (ii) the firm is *not* located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3. For the real outcomes tests below, we define a firm as a "Strategic Exporter" if the firm has at least one buy signal for any of its exports in a given year; meanwhile a firm is defined as a "Non-Strategic Exporter" if it has zero buy signals in a given year, and has at least one sell signal.

A simple example helps to clarify our approach. Consider two firms: A and B. Firm A is located in an MSA (e.g., Jersey City, New Jersey) where the share of Indian residents is in the top 3 across all MSAs. Firm A exports a significant amount (relative to its industry) in a given month to India. By contrast, Firm B is located in a different MSA (e.g., Bangor, Maine) where the share of Indians is not in the top 3 across all MSAs (Bangor is ranked 156th in population share of Indians across all MSAs), and yet Firm B also exports a significant amount (again relative to its industry) in a given month to India. Thus although Firm A and Firm B are engaging in identical behavior (exporting a significant amount to India in a given month), Firm A will be classified as a "Strategic Exporter," and Firm B will be classified as a "Non-Strategic Exporter."

Using this classification procedure, we then examine whether strategic traders on average achieve superior real outcomes in the future, relative to their non-strategic counterparts. We view these trade links as helping the trade prospects of connected firms. This could work through the sales channel (e.g., introduction through the link to new foreign trade partners that an unlinked competitor does not receive introductions to), however it need not. It might just as plausibly work through a profitability channel, for example, allowing the firm to access lower cost inputs in the linked country for its existing production processes. We thus test this by running panel regressions of future sales and future profitability on lagged strategic trading activity, for all firms across all MSAs. The dependent variables we examine are: 1) future sales (in year t+1) divided by lagged assets (in year t); and 2) ROA (defined as future EBITDA in year t+1

to Germany; in absolute terms Firm A exports more, but its within-firm share (50%) would be smaller than Firm B's (66%) within-firm share; our results are similar for both of these ranking measures. Finally, Appendix Table A13 shows that if we widen the export intensity threshold to include all firms above the median in export intensity, rather than just in the Top 3, we find similar results.

divided by lagged assets in year t). We include a series of control variables, including size (log of market capitalization), B/M (log of the book-to-market ratio), leverage (long-term debt in year t divided by lagged assets in year t), and cash (future cash in year $t+1$ divided by lagged assets in year t). We also include fixed effects for time (year) and firm in all of these regressions.

Table VI presents the results of these real outcome tests. Specifically, Column 1 shows that strategic exporters achieve higher sales in the future. The coefficient of 0.026 (t=2.89) implies that relative to a median sales-to-lagged assets figure of 0.56, strategic exporters achieve almost 5% higher future sales. Meanwhile the coefficient indicator variable for non-strategic exporters is close to zero, and insignificant. In terms of future profitability (EBITDA/Assets), Column 3 indicates that strategic exporters achieve significantly higher profitability (coefficient=0.009, t=2.05); relative to a median profitability of 0.083, strategic exporters experience roughly an 11% increase in profitability. At the same time, non-strategic exporters show a statistically significant decline in profitability (coefficient=-0.006, t=2.95) in the year after their non-strategic export decisions, on the order of -7%. Columns 5-8 repeat the same tests for imports, and reveal that strategic importers earn significantly higher sales (coefficient=0.019, t=3.24), but do not achieve significantly higher profitability. Non-strategic importers show no increases in sales or profitability in the future.

Thus the evidence in Table VI indicates that it is precisely the firms that exploit their ethnic resident links that achieve higher sales growth and profitability. Firms that exhibit the exact same behavior as these firms, but that do not have these ethnic links (i.e., non-strategic importers and exporters), experience neither of these favorable outcomes. In unreported tests we also find the market does not fully understand or incorporate this advantage into strategic firms' prices, generating predictably large, future abnormal returns (which also exist for firms exploiting connected boards). Relatedly, analysts also do not appear to take into account the advantages of strategic importing and exporting, and so are significantly less accurate in their earnings forecasts on these strategic trading firms.[24]

[24] These results can be found in the Appendix, in Table A14 (which shows calendar-time portfolio returns to strategic importers/exporters), Table A15 (which shows Fama-MacBeth cross-sectional return

V. The Impact of Resident Networks on Other Firm-Level Decisions: M&A and Segment Sales

In this section we examine if the impact of resident networks in international transactions is confined to trade behavior, or whether it extends to the other ways in which firms operate and interact globally. In particular, we examine both international M&A activity, as well as segment sales in connected countries.

A. Cross-Border Mergers and Acquisitions (M&A)

What are the important determinants of cross border acquisitions? Erel et. al. (2012) provides evidence that when the distance between two countries is short, we observe more acquisitions between these two countries. We also know that firms in high corporate income tax regimes acquire firms in low tax regimes. Furthermore, cross-border acquisitions are higher between counties that have higher synergies, such as a common cultural background. While these results suggest that country-level information friction proxies help explain country-level transaction quantities, we have limited evidence at the firm-level that directly shows what influences a given firm's decision to pick a target firm's domicile. In this section we investigate if firms that are surrounded by a certain type of local resident network are more likely to purchase another firm in a country that is linked through the resident network.

To do so, we investigate whether firms that have connections to foreign countries through a connected population (or a connected board member) engage in more mergers and acquisitions transactions in those countries. Specifically, we use the SDC database to identify all mergers that involve a U.S. firm as an acquirer, and a foreign firm as a target. Then, for each merger that involves firm *i* and a target in country *j*, we create a merger opportunity set which involves potential mergers that could have happened between firm *i* and firms in all the other countries except *j*.[25] Our left hand side is a

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regressions, including a Connected Board dummy variable), and Table A16 (which presents analyst forecast errors and earnings surprises associated with strategic trading behavior).

[25] Our results are not sensitive to the way we define the "merger opportunity set," for example: (1) excluding countries that have never attracted a US acquirer for one of its firms in the past 5 years, or (2) using only including counties that have attracted a US acquirer in that particular year for another US acquirer.

dummy variable, M&A Target, takes a value of 1 for the actual merger, and 0 for the other potential deals that did not occur. The right hand side variables include Number of Firms in Country, which is the total number of M&A targets involving a US acquirer in that country in that year, and Number of Countries, which is the total number of M&As a given firm had in that particular year. Our main variables of interest are: Connected Population, which refers to the number of residents in a firm's headquarter MSA connected to a foreign country scaled by total population in that MSA (CP_{ct}); and Connected Board Member, which is a dummy variable that takes a value of 1 if the firm has a board member who has an ethnicity tie to that country. We include both firm and country fixed effects in the first two specifications to capture M&A activity level in a particular year or in a particular country. In the final specification, we include a very restrictive set of fixed effects--country-year fixed effects--to control for any country-year factors that could be related to M&A Target, such as the exchange rate level (see Erel et al. (2012)).

Table VII presents the results. We find that both Connected Population and Connected Board Member are strong positive predictors of the likelihood that a firm acquires a firm in a given country. Specifically, for a foreign company in country X, the unconditional probability of being picked by firm X as a merger target is 3.46%. If this foreign company has some connected population around the US firm (e.g. a one-standard deviation increase), this probability goes by another 1.44%, an increase of roughly 42% in percentage terms. Similarly, if there is a connected board member, this probability goes up by 2.75% (roughly an 80% increase). To recap, these findings indicate that firms are significantly more likely to purchase target firms in the same countries to which they are linked through their local resident networks.

B. Segment Sales

In this section, we investigate whether firms that have connections to foreign countries through their connected resident populations (or through board members) have generally a broader presence in those countries. Specifically, we use geographic segment information filed by corporations to measure the amount of sales originated from a certain country or region, and test whether this is impacted by the firms' surrounding ethnic populations (and connected boards). The sales figure represents all sales done in that country, and thus could be from joint ventures, physical locations in the country, or direct sales to the foreign country.

The dependent variable we use is the Segment Sales Ratio, which equals the sales of a foreign segment scaled by total sales reported in all foreign segments in that year. Data on sales in geographic segments are drawn from the Compustat geographic segment files. In these files, a geographic segment may refer to a specific country (e.g. China) or a region (Asia). Because the segment reporting is not standardized, we created concordance files to map regions to companies using the United Nations Cartographic maps. We exclude observations that do not contain any geographic reference to a region or country. While this Segment Geographic Sales is thus much more noisily measured, it does capture some independent variation through other manners in which firms establish relationships with foreign partners. Our main independent variable of interest (as in Table III) is Connected Population. Connected Population refers to the number of residents in a firm's headquarter MSA connected to a foreign country scaled by total population in that MSA (CP_{ct}). We also include Connected Board Member, which takes the value of 1 if the firm has a board member who has an ethnicity tie to that country. We also include a number of control variables. The variable Number of Firms in Country equals the total number of firms reporting a segment sale in that country. By including this variable, we intend to capture the effect of the clustering of U.S. corporations doing business in certain countries. Number of Countries is the total number of unique countries a firm reported in its segment files. Segment Sales refers to sales of that segment in that particular year. We also include year and country fixed effects in each specification.

Table VIII shows that both Connected Population and Connected Board Member are statistically significant predictors of the Segment Sales Ratio. In terms of magnitude, a one standard deviation increase in Connected Population (Connected Board Member) increases segment sales by 1.8% (0.7%) in that country. These results represent corroborating evidence for the earlier evidence from Tables III-V. Not only do surrounding ethnic populations impact the importing and exporting decisions of firms, but they have a broader impact on sales and expansion decisions of firms, as well.

Collectively, the results in Tables VII and VIII, coupled with the earlier findings on trade behavior, indicate that local resident networks have a first-order impact on each of the primary ways in which corporations operate globally, from trade decisions with other firms, to international mergers and acquisition (M&A) activity, to selling products in foreign markets through segments established abroad.

VII. Additional Tests of the Mechanism

In this section we run a number of tests to better establish the potential mechanism behind our findings.

A. Tariff and Differentiated Product Analysis

First, we expect that when network connections are more valuable, we should see these connections more heavily utilized. We test this idea by looking at tariff controls between the US and a given connected country for a given product, which represent shocks to the value of firm-country links. In particular, we use product-level data on imports for the firms in our sample, and identify situations where country-specific tariffs set by the US on types of goods are higher or lower. Thus our tests are similar to those in Table III, except that they are now run at the product level, and hence the unit of observation in the regressions is the firm-product-country-year. In addition, we include new variables designed to measure the impact of tariffs, for example a variable called "Tariff" which is equal to the US import tariff on the given product imported from the given country in the given year. We also include the interaction term between tariff cuts and firm-country links (Connected Population*Tariff). Since US tariffs only bind for imports, we only run these tests using the Import Ratio as the dependent variable.

Table IX presents the results of these tests. Specifically, we run panel regressions of import ratios on firm-country resident links, plus the tariff variables described above, along with various fixed effects including destination-country and firm-year fixed effects.[26] From Column 1, the coefficient on the interaction term (Connected Population*Tariff), which is negative and significant (=-0.0018, t=3.19), suggests that

[26] Appendix Table A17 presents additional specifications for these tests.

Connected Population has only roughly 35% the impact when tariffs are one standard deviation larger to the country. In other words, precisely when it is more costly to utilize the advantages of the Connected Population, Connected Population has a significantly smaller effect on import decisions of firms.

In the last two columns, we also investigate whether the effects of resident networks are more pronounced for certain types of products. For this purpose, we use the differentiated versus homogenous product classification of Rauch (1999). Homogenous products are those that one can obtain from organized exchanges.[27] Rauch (1999) provides a theory that information links' impact on trade should be greatest for differentiated products, and smallest for homogeneous products traded on organized exchanges. Column 2 shows that the network effects we identify are indeed significantly more pronounced when importing differentiated products as opposed to homogenous products; however, we find no significant differential effect across product types for exports.

B. Shipment-Level Prices

Next we use micro-level data on the estimated values of the shipments in our trade data in order to investigate whether the benefits of resident networks manifest themselves in shipment prices.

Our data provider supplies both total estimated value of a shipment and quantity of the shipment (such as weight in Mtons). Using these two pieces of information, we calculate the unit prices by dividing the estimated value by the quantity.[28] We then collapse our data to the MSA-level for each product exported to (or imported from) a given country in a given year. The unit of observation we analyze is thus the median price paid for a given product exported from a given MSA to a given

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[27] We thank James Rauch for providing product classifications (http://weber.ucsd.edu/~jrauch/research_international_trade.html).
We use the conversion tables maintained at United Nations to map these Standard International Trade Classification (SITC Rev. 2) based classification to HS Codes used in vessel manifests (http://unstats.un.org/unsd/trade/conversions/HS%20Correlation%20and%20Conversion%20tables.htm).

[28] Our data provider, PIERS, uses a proprietary estimation method that incorporates the waterborne values, which utilizes information on product type, U.S. Port cluster, Direction and Country. In our email exchanges with the company, they disclosed that export and import transactions use separate inputs for estimation of the waterborne value.

country. We include a triple interaction term, Product x Year x Country, to capture variation between Connected Population and prices within a product, year, and country cluster. We also include MSA fixed effects to control for price levels specific to a given location.

We present the results in Table X. This table indicates that export prices are positively correlated with connected population (t=3.98), which indicates that exports to these connected locations (i.e., those with higher resident populations linked to the community of the producing facility) have higher prices. Import prices, however, are not correlated with connected population.

We then replicate the same analysis without collapsing the data to the MSA level. This specification allows us to include the connected board member dummy, which varies across firms within a given MSA. We obtain similar results for the Connected Population variable in both the exports and imports sample, i.e. we find higher export prices but no difference for import prices. We do, however, find a weak relation between import prices and the connected board member dummy. Specifically, these results suggest that firms with a connected board member pay less for the imports. Taken as a whole, Table X indicates that firms are able to extract higher prices on their exports to connected countries (and also provides suggestive evidence of lower import prices through connected board members), which helps to explain why connected trading is more profitable for firms.

VIII. Conclusion

In this paper, we exploit variation in ethnic populations across the United States to provide evidence on how local residents' ties to their home-countries influence firms' international transactions. We show that resident network effects are wide-ranging and impact each of the primary ways that firms interact globally, from trade decisions with other firms, to international mergers and acquisition (M&A) activity, to selling products in foreign markets through segments established abroad. To do so, we employ novel customs and port authority data detailing the international shipments of all U.S.

publicly-traded firms, and show that firms import and export significantly more with countries that have a strong resident population near their firm headquarters location.

We use the formation of World War II Japanese Internment Camps to isolate exogenous shocks to local ethnic populations, and identify a causal link between local networks and firm trade. Specifically, we first show that the Japanese Internment Camps had a large and lasting impact on the Japanese population in MSAs surrounding Internment Camps. These Internment Camps had zero impact on other immigration patterns from Asia (or other regions), and the surrounding MSAs themselves appear otherwise identical in terms of growth, employment, industries, etc., aside from the exogenously dropped Japanese population that persists through today. These surrounding MSAs today also have an abnormally large number of Japanese sister cities relative to other MSAs, providing additional corroborating evidence on the long-lasting nature of these shocks. We then show that this exogenously placed Japanese population impacts firm trade: firms surrounding former Internment Camp locations export significantly more to Japan (and import significantly more from Japan) than other firms.

More broadly, we find that firms that exploit their resident networks in their international trade decisions (strategic traders) experience significant increases in future sales growth and profitability. Further, we show that resident networks have effects beyond simply influencing trade behavior: we find that firms are also more likely to acquire target firms, and report increased segment sales, in countries to which they are connected. Finally, we find that connected board members represent a possible mechanism by which information is transferred along the resident network.

While we focus on immigration and how demographic factors affect the behavior of firms, we believe that our approach can be readily adapted to study other local advantage factors. Immigrants' conduit roles in economic transactions stretch far beyond those we document in this paper, such as in the growing bilateral remittance channel, which represents a non-trivial portion of total GDP for many developing nations. Our research thus contributes to this growing area, providing novel evidence on the economic impact of immigration and ethnic diversity.

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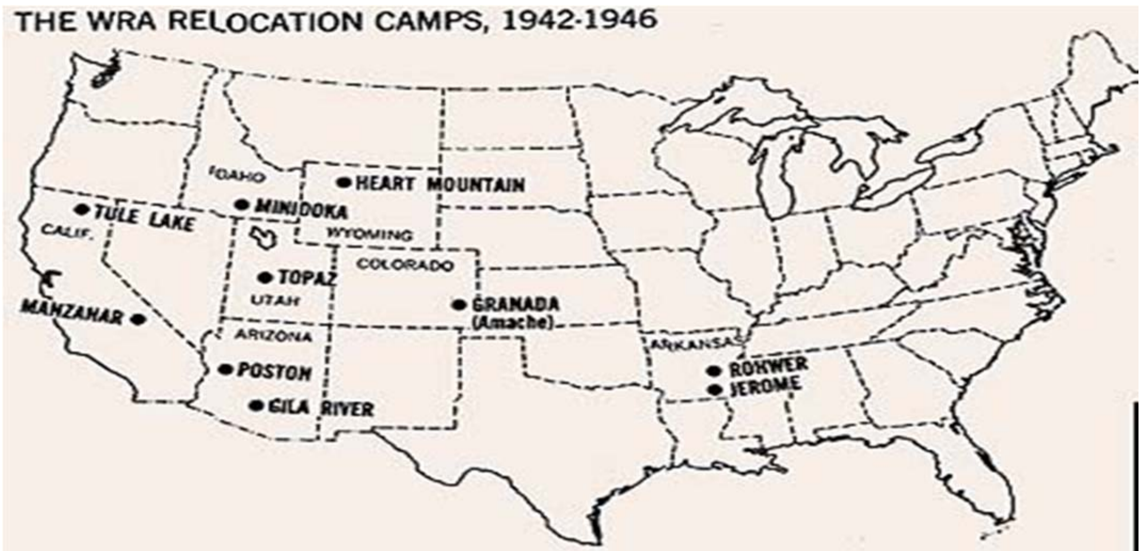
Figure 1: Japanese Internment Camps of World War II

This figure presents summary statistics on aspects related to the Japanese Internment Camps of World War II. Panel A shows a map of the US, indication where the ten internment camps were located, delineating them with a old text with a dot (Daniel (1993)). Panel B gives the location of the 10 internment camps, along with peak populations in each camp (CLPEF (1998)). Panel C shows the Japanese population in 1940 in each of the seven states that would later house internment camps, from the United States Census of 1940.

Panel A: Map of 10 Internment Camps



Panel B: Populations of 10 Internment Camps

Center	State	Date of first arrival	Peak Population	Date of peak	Date last prisoner left
Gila River	AZ	7/20/42	13,348	12/30/42	11/10/45
Granada	CO	8/27/42	7,318	2/1/43	10/15/45
Heart Mountain	WY	8/12/42	10,767	1/1/43	11/10/45
Jerome	AR	10/6/42	8,497	2/11/43	6/30/44
Manzanar	CA	3/21/42	10,046	9/22/42	11/21/45
Minidoka	ID	8/10/42	9,397	3/1/43	10/28/45
Poston	AZ	5/8/42	17,814	9/2/42	11/28/45
Rohwer	AR	9/18/42	8,475	3/11/43	11/30/45
Topaz	UT	9/11/42	8,130	3/17/43	10/31/45
Tule Lake	CA	5/27/42	18,789	12/25/44	3/20/46

Panel C: Pre-Internment Camps Population (from 1940 Census)

State	ST	Total Population	Japanese Population
Arizona	AZ	499,261	632
Arkansas	AR	1,949,387	3
California	CA	6,907,367	93,717
Colorado	CO	123,296	2,734
Idaho	ID	524,873	1,191
Utah	UT	550,310	2,210
Wyoming	WY	250,742	643

Table I: Summary Statistics for Importers and Exporters

This table presents summary statistics on the firms included in the tests. MVE is the market value of equity calculated as the price end of calendar year prior to fiscal year end multiplied by number of shares outstanding. B/M is the book to market ratio where the book value of equity is calculated as sum of stockholders equity (SEQ), Deferred Tax (TXDB), Investment Tax Credit (ITCB) minus Preferred Stock (PREF). Leverage is long-term debt (DLTT) plus debt in current liabilities (DLC), divided by the numerator plus market equity. Past Return is the twelve month return prior to fiscal year end. ROA (return on asset) earnings before tax and depreciation (EBITDA) scaled by total assets (TA). PPE/TA is the ratio of plant, property, and equity (PPENT) scaled by total assets. The unit of observation is firm-year. Panel A (B) reports the summary statistics for public firms, which exported (imported) at least once in a given year. The sample period covers 1994 to 2010. Panel C reports the industry breakdown of importers and exporters by 2-digit NAICS code.

Panel A: Firm level data for exporters

	MVE	B/M	Leverage	Past Return	ROA	PPE/TA
mean	4,929	0.723	0.223	0.175	0.119	0.284
sd	20,899	1.591	0.174	0.714	0.146	0.201
p5	9	0.125	0.000	-0.558	-0.066	0.029
p10	19	0.185	0.000	-0.419	0.015	0.059
p25	74	0.314	0.071	-0.177	0.078	0.132
p50	404	0.527	0.209	0.081	0.129	0.241
p75	2,044	0.858	0.339	0.365	0.182	0.392
p90	8,598	1.345	0.455	0.754	0.239	0.579
p95	20,142	1.822	0.534	1.158	0.279	0.692
N	20,073	20,073	20,122	19,713	20,021	20,046

Panel B: Firm level data for Importers

	MVE	B/M	Leverage	Past Return	ROA	PPE/TA
mean	4,889	0.711	0.211	0.182	0.107	0.265
sd	20,595	0.934	0.175	0.783	0.160	0.201
p5	11	0.127	0.000	-0.583	-0.104	0.020
p10	23	0.185	0.000	-0.434	-0.003	0.043
p25	87	0.313	0.051	-0.187	0.068	0.109
p50	455	0.523	0.195	0.078	0.122	0.220
p75	2,110	0.847	0.328	0.371	0.175	0.372
p90	8,626	1.320	0.448	0.789	0.232	0.564
p95	19,450	1.800	0.528	1.208	0.273	0.676
N	23,743	23,743	23,787	23,298	23,687	23,722

Table I (ctd.): Summary Statistics

Panel C: Industry Breakdown of Exporters and Importers

NAICS 2	Importers	Exporters	Definition
11	17	16	Agriculture, Forestry, Fishing and Hunting
21	114	112	Mining, Quarrying, and Oil and Gas Extraction
22	78	52	Utilities
23	43	39	Construction
31-33	2,358	1,994	Manufacturing
42	194	184	Wholesale Trade
44-45	340	274	Retail Trade
48-49	93	80	Transportation and Warehousing
51	290	163	Information
52	245	169	Finance and Insurance
53-54	221	159	Professional, Scientific, and Technical Services
56	77	58	Admin/Support/Waste Management and Remediation Services
61	8	4	Educational Services
62	36	32	Health Care and Social Assistance
71	19	13	Arts, Entertainment, and Recreation
72	59	43	Accommodation and Food Services
81	49	39	Other Services (except Public Administration)
Total	4,241	3,431	

Table II: Major U.S. and Foreign Ports

This table reports the top 5 ports used by the sample firms for imports and exports in U.S. and foreign countries. The figures reported are annual dollar value of imports and exports (in billions) throughout the sample period (1994-2010).

Panel A: Top 5 Importing U.S. Ports

LOS ANGELES	185
LONG BEACH	159
NEW YORK	95
SEATTLE	62
NORFOLK	61

Panel B: Top 5 Exporting U.S. Ports

HOUSTON	110
LOS ANGELES	85
NEW YORK	75
NORFOLK	66
CHARLESTON	61

Panel C: Top 5 Origination Ports for U.S. Imports

HONG KONG	125
RICHARDS BAY	105
YANTIAN	76
KAOHSIUNG	63
SHANGHAI	61

Panel D: Top 5 Destination Ports for U.S. Exports

ANTWERP	66
ROTTERDAM	57
VANCOUVER	50
HONG KONG	43
SINGAPORE	37

Table III: The Impact of Ethnic Connections on Firm-Level Trade Across All MSAs and All Countries

Panel A of this table presents coefficient estimates of fixed effects regressions of export ratio (ER) on Connected Population (CP) and control variables: ER_{ict} = b1+ b2* CP_{ct} + b3* Connected Board Member + fixed effects. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the export country scaled by total population of that MSA in the most recent census (CP_{ct}). Connected Board Member is a binary variable that takes a value of 1 if the firm has a board member with an ethnic background the same as the export destination or import origin. Panel B of this table presents coefficient estimates of the following specification: IR_{ict} = b1+ b2* CP_{ct} + b3* Connected Board Member + fixed effects, where import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Population Density is the population of MSA scaled by area of MSA(x10^6), MSAs literacy (population 7 to 20 years of age attending school scaled by total population), unemployed (% of population out of job, able to work and looking for a job), number of manufacturing establishments per one thousand people, and payroll per person (Full-Time and Part-Time payroll of retail establishments). T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Exports							
	Export Ratio	Export Ratio	Export Ratio	Export Ratio	Export Ratio (extensive margin)	Export Ratio	Export Ratio
Connected Population	0.023***	0.038***	0.039***	0.042***	0.0012***	0.022***	0.021***
	(4.13)	(6.91)	(7.50)	(6.71)	(7.24)	(5.84)	(5.49)
Connected Board Member							0.016***
							(4.07)
Population Density			-0.306				
			(1.00)				
Literacy			-0.472				
			(1.10)				
Unemployment			-0.353				
			(2.49)				
Manufacturing Establishment			-0.225				
			(1.57)				
Payroll			-0.001				
			(1.30)				
Year FE	Yes	Subsumed	Subsumed	Yes	Yes	Subsumed	Subsumed
Region FE	Yes	Yes	Yes	Subsumed	Subsumed	Yes	Yes
MSA x Year FE	No	Yes	No	No	No	No	No
State x Year FE	No	No	Yes	No	No	No	No
MSA FE	No	Subsumed	Yes	Subsumed	Subsumed	Subsumed	Subsumed
MSA x Region FE	No	No	No	Yes	Yes	No	No
Firm x Year FE	No	No	No	No	No	Yes	Yes
Adj. R2	0.01	0.10	0.08	0.11	0.02	0.57	0.57
Number of Observations	80,529	80,529	80,529	80,529	2,966,539	80,529	80,529

Table III (ctd.): The Impact of Ethnic Connections on Firm-Level Trade Across All MSAs and All Countries

Panel B: Imports

	Import Ratio	Import Ratio	Import Ratio	Import Ratio	Import Ratio (extensive margin)	Import Ratio	Import Ratio
Connected Population	0.063***	0.065***	0.066***	0.095***	0.0031***	0.035***	0.035***
	(6.39)	(7.59)	(7.64)	(10.92)	(9.87)	(4.27)	(4.24)
Connected Board Member							0.016***
							(5.78)
Population Density			-0.166				
			(1.71)				
Literacy			0.971				
			(1.82)				
Unemployment			0.290				
			(2.09)				
Manufacturing Establishment			0.823				
			(4.82)				
Payroll			-0.0001				
			(2.83)				
Year FE	Yes	Subsumed	Subsumed	Yes	Yes	Subsumed	Subsumed
Region FE	Yes	Yes	Yes	Subsumed	Subsumed	Yes	Yes
MSA x Year FE	No	Yes	No	No	No	No	No
State x Year FE	No	No	Yes	No	No	No	No
MSA FE	No	Yes	Yes	Subsumed	Subsumed	Subsumed	Subsumed
MSA x Region FE	No	No	No	Yes	Yes	No	No
Firm x Year FE	No	No	No	No	No	Yes	Yes
Adj. R2	0.02	0.09	0.08	0.49	0.02	0.46	0.46
Number of Observations	84,926	84,926	84,926	84,926	2,634,115	84,926	84,926

Table IV: Instrumental Variable Analysis: Japanese Internment Camps

This table presents the instrumental variable estimation using Japanese Internment Camps. Panels A and B present results for exports (imports) in Columns 1 and 2 (3 and 4). The sample includes only the exports to (or imports from) Japan. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Connected population is the number of Japanese people in a firm's headquarter MSA scaled by total population of the MSA in the most recent census (CP_{ct}). Immigration from Asia refers to the growth rate of Asian-Pacific Islander ethnicities except Japanese (e.g. Korean, Chinese, Hindu and Filipino), measured as the ratio in 1990 to that of 1930. Population density refers to 1940 population (in thousands) scaled by area of MSA per square mile. Other Asian Ethnicities refers to Korean, Chinese, Hindu and Filipino population in an MSA (in millions). West Coast dummy takes a value of 1 if the internment camp is located in one of the west coast states, e.g. California, Oregon and Washington. The instrument, Japanese Internment is a categorical variable that takes a value of 1 if the headquarter of the firm is located within 250 miles of an internment camp. All standard errors are adjusted for clustering at the year level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: First Stage

Sample Trade Firms:	Exporters	Exporters	Exporters (extensive margin)	Importers	Importers	Importers (extensive margin)
Dependent Variable:	Connected Population	Connected Population	Connected Population	Connected Population	Connected Population	Connected Population
Japanese Internment	0.0069***	0.0012***	0.0018***	0.0091***	0.0089***	0.0029***
	(26.07)	(9.57)	(8.35)	(29.99)	(30.88)	(25.24)
Immigration from Asia		-0.0001***	-0.0001***		-0.0001***	-0.0001***
		(13.26)	(14.39)		(8.00)	(10.38)
Population Density		0.00053***	-0.0003***		-0.0006***	-0.0002
		(9.84)	(7.03)		(3.85)	(0.03)
Other Asian Ethnicities		0.0073***	0.0048***		0.0050***	0.0024***
		(15.73)	(13.83)		(9.38)	(4.20)
Ln (MSA Population in 2000)		-0.0001***	0.0001***		-0.0001**	0.0001**
		(3.71)	(4.03)		(2.04)	(6.71)
West Coast Dummy		0.0076***	0.0086***		0.0088***	0.0094***
		(23.36)	(21.35)		(21.85)	(22.76)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.60	0.86	0.89	0.70	0.72	0.90
Number of Observations	3,165	3,165	112,366	4,804	4,804	161,159

Panel B: Second Stage

Sample Trade Firms:	Exporters	Exporters	Exporters (extensive margin)	Importers	Importers	Importers (extensive margin)
Dependent Variable:	Export Ratio	Export Ratio	Export Ratio	Import Ratio	Import Ratio	Import Ratio
Instrumented Connected Population	13.05***	26.43*	1.762***	8.80***	34.89***	1.06***
	(4.73)	(1.74)	(4.77)	(5.09)	(4.04)	(4.30)
Immigration from Asia		-0.01	-0.0004**		-0.02***	-0.0006***
		(0.30)	(2.29)		(3.47)	(3.86)
Population Density		-0.02	0.0005**		-0.03***	-0.0005
		(0.12)	(2.09)		(5.70)	(0.19)
Other Asian Ethnicities		-0.11	0.0085***		-0.27***	-0.0057**
		(0.78)	(2.68)		(2.84)	(2.01)
Ln (MSA Population in 2000)		-0.008	-0.0017***		0.01	-0.0005*
		(1.18)	(5.73)		(0.60)	(1.87)
West Coast Dummy		-0.16	-0.012***		-0.30***	-0.010***
		(1.26)	(3.30)		(3.97)	(4.34)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.03	0.03	0.03	0.04	0.05	0.05
Underidentification test F-stat (Kleibergen-Paap)	9.97	10.35	8.34	14.67	14.07	14.30
Weak identification test F-stat (Kleibergen-Paap)	679.82	91.53	69.65	899	250.02	637.14
Number of Observations	3,165	3,165	112,366	4,804	4,804	161,159

Table V: Japanese Internment Camps IV Analysis: Supporting Evidence

This table presents supporting tests for the IV estimation in Table IV. In Panel A, West Coast dummy takes a value of 1 if the internment camp is located in one of the west coast states, e.g. California, Oregon and Washington. Sister cities are a form of cooperative agreement made between towns, cities, provinces, or regions in geographically and politically distinct areas to promote cultural and commercial ties. Japanese sister cities refer number of ties to Japanese cities formed by cities in a given MSA. MSA Population refers to total MSA population in 2000 (in millions). Other Asian Ethnicities refers to Korean, Chinese, Hindu and Filipino population in an MSA (in millions). Connected Population to Japan and Connected Population to Other Asian Ethnicities are scaled by population in the corresponding MSA population. Panel A includes all MSAs in U.S.A for which we have data on immigration in 2000. In Panel B, we test whether the MSA's Japanese internment camp located were different from comparable MSA's across three measures of urbanization prior to WWII (1930 and 1940 censuses) and beginning of our analysis (1990 Census). To find comparable MSAs, we use nearest-neighbor matching procedure, i.e. we match every Japanese Internment camp MSAs with 3 MSAs with closest population density per square mile in 1940 (total population scaled by area of MSA). The metrics we use to compare MSAs are literacy (population 7 to 20 years of age attending school scaled by total population), unemployed (% of population out of job, able to work and looking for a job), number of manufacturing establishments per one million people, and payroll per person (Full-Time and Part-Time payroll of retail establishments). In Panel C, we test whether the future population densities are different between MSA's where Japanese internment camps are located and comparable MSA's, when the MSAs are matched by 1940 population densities. Panel D shows summary statistics for two sets of firms trading with Japan: those surrounding - and not surrounding - the Internment Camps. Panel E shows the largest trading partners of US publicly traded firms over the sample period. In Panel B and C, we report Abedie-Imbens standard error based z-statistics in parenthesis. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Sister Cities, Removing West Coast, and Cross-Sectional Regressions						
Dependent Variable:	# of Japanese Sister Cities	# of Japanese Sister Cities	# of Japanese Sister Cities	Connected Population to Japan	Connected Population to Japan	Connected Population to Other Asian Countries
Japanese Internment	0.900***	0.432**	0.369**	0.004***	0.002***	0.000
	(4.34)	(2.51)	(2.15)	(9.19)	(5.47)	(1.42)
Other Asian Ethnicities		8.523***	7.441***			
		(12.30)	(9.37)			
Ln (MSA Population in 2000)			0.166***		0.000***	0.000***
			(2.69)		(3.36)	(6.73)
West Coast Dummy					0.006***	0.002***
					(16.47)	(9.56)
Constant	0.364***	0.225***	-1.869***	0.002***	-0.002***	-0.004***
	(4.85)	(3.64)	(2.40)	(10.94)	(2.30)	(5.78)
R^2	0.06	0.38	0.39	0.23	0.61	0.40
Sample Size (# of MSA)	291	291	291	291	291	291

Table V (ctd.): Japanese Internment Camps IV Analysis: Supporting Evidence

Panel B: Differences in Urbanization Measures between Japanese Internment MSAs and Census year X Population Density Matched MSAs

Census	Literate	Unemployment	Manufacturing Establishment	Payroll
1930	-0.48%	0.12%	-5.32	0.47%
z-stat	(0.35)	(0.61)	(0.05)	(1.42)
1940	0.31%	-0.23%	-40.6	0.37%
z-stat	(0.20)	(0.84)	(0.46)	(1.47)
1990	-0.99%	0.97%	4.13	0.08%
z-stat	(0.78)	(1.52)	(1.28)	(0.40)

Panel C: Differences in *Future* Population densities between Japanese Internment MSAs and 1940-Population Density Matched MSAs

	1990 Census	2000 Census
Population Density	67.53	82.65
z-stat	(1.16)	(1.23)

Panel D: Firm Characteristics of Japanese Trade Partner

	Firms Outside of Camp Area with Japanese Trade (N=1148)			Firms Around Camps with Japanese Trade (N=348)			
	Mean	Median	SD	Mean	Median	SD	t-stat
MVE	3,725.21	436.14	14,039.88	4,286.92	369.84	20,010.46	-0.49
Assets	5,629.08	505.80	31,698.63	5,030.09	298.94	34,881.36	0.29
Employees	12.80	2.94	31.70	11.23	1.33	68.06	0.42
Tobin's Q	1.69	1.42	0.84	2.02	1.74	1.05	-5.37
Sales growth	0.09	0.08	0.11	0.10	0.11	0.16	-1.47
CAPX/Sales	0.07	0.04	0.11	0.09	0.04	0.17	-2.38

Panel E: Top U.S. Trading Partners

	Public Firms	
	% Imports	% Exports
Japan	11.38%	6.19%
China	5.30%	13.63%
Germany	3.13%	1.96%
Canada	6.37%	6.98%
Mexico	2.70%	4.22%

Table VI: Real Effects of Strategic Trading Activity

This table reports panel regressions of different measures of future firm-level real outcomes on lagged strategic trading activity. For exports, we first create buy/sell signals based on a firm's export amount in a given month, its destination country, and the match between the destination country's ethnicity and the firm's headquarter MSA's (metropolitan statistical area) ethnic composition. We use the American Communities Project (ACP) ethnicity classifications, and match these to destination countries as shown in Table A2. In every year for each MSA, we compute the share of each ethnicity that resides in each MSA. We then rank the share of each ethnicity across all MSAs in the US. The buy signal equals one if (i) a firm's share of total industry exports to a given country in a given month is ranked in the top 3, and (ii) the firm is located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3. The sell signal equals one if (i) a firm's share of total industry exports to a given country is ranked in the top 3, but (ii) the firm is *not* located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3. We define a firm as strategic exporter if the firm has at least one buy signal for any of its exports in a given year. A firm is defined as a non-strategic exporter if it has zero buy signals in a given year, and has at least one sell signal. The dependent variables are: 1) future sales (in year t+1) divided by lagged assets (in year t); and 2) ROA (defined as future EBITDA in year t+1 divided by lagged assets in year t). Control variables include Size (log of market capitalization), B/M (log of the book-to-market ratio), Leverage (long-term debt in year t divided by lagged assets in year t), and Cash (future Cash in year t+1 divided by lagged assets in year t). Fixed effects for time (year) and firm are included in all regressions. t-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	$Sales_{t+1}/Assets_t$		$EBITDA_{t+1}/Assets_t$		$Sales_{t+1}/Assets_t$		$EBITDA_{t+1}/Assets_t$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Strategic Exporter	0.026***	0.021**	0.009*	0.010**				
	(2.89)	(2.16)	(2.05)	(2.47)				
Non-Strategic Exporter	-0.000	0.001	-0.006***	-0.006***				
	(0.01)	(0.15)	(2.95)	(3.14)				
Strategic Importer					0.019***	0.021***	0.005	0.001
					(3.24)	(3.86)	(0.64)	(0.015)
Non-Strategic Importer					0.002	0.004	0.001	0.001
					(0.72)	(1.14)	(0.36)	(0.24)
Size		-0.048***		0.011**		-0.054***		0.011**
		(13.47)		(2.32)		(14.48)		(3.13)
B/M		-0.122***		-0.063***		-0.134***		-0.070***
		(7.99)		(4.82)		(8.53)		(6.03)
Leverage		-0.478		-0.014		-0.003		-0.419
		(1.72)		(0.05)		(0.01)		(1.02)
$Cash_{t+1}/A_t$		-1.448**		-0.270		-1.686***		-1.508
		(2.52)		(0.40)		(3.33)		(1.43)
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.88	0.89	0.68	0.69	0.89	0.90	0.66	0.68
No. of Obs.	14,260	14,203	14,205	14,152	17,412	17,345	17,343	17,279

Table VII: The Impact of Resident Networks on Mergers and Acquisitions (M&A)

This table presents coefficient estimates of fixed effects regressions of M&A Target on Connected Population (CP) and control variables: M&A Target $_{ict}$ = b1+ b2* CP_{ct} + b3* Connected Board Member + Year Fixed Effect+ Country Fixed Effect. For a given firm in a given year, the sample contains all the foreign countries, some of which may have the M&A target. The left hand side variable, M&A Target, takes a value of 1 for observations that a firm found the M&A target in a given country in that particular year. Number of Firms in Country is the total number of M&A targets in a given country. Number of Countries is the total number of M&As a given firm had in a given year. Connected Population refers to the number of residents in a firm's headquarter MSA connected to a foreign country scaled by total population in that MSA (CP_{ct}), and Connected Board Member takes the value of 1 if the firm has a board member who has an ethnicity tie to that country. T-stats, adjusting for clustering at the year level, are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	M&A Target	M&A Target	M&A Target
Connected Population	0.0362***	0.0369***	0.0362***
	(7.57)	(7.48)	(6.37)
Connected Board Member		0.0290***	0.0275***
		(2.08)	(3.30)
Number of Firms in Country	0.0024***	0.0024***	Subsumed
	(7.41)	(7.44)	
Number of Countries	0.0239***	0.0239***	0.0239***
	(18.54)	(18.72)	(50.90)
Year Fixed Effects	Yes	Yes	Subsumed
Country Fixed Effects	Yes	Yes	Subsumed
Country x Year	No	No	Yes
Adj. R2	0.115	0.060	0.112
Number of Observations	102,584	102,584	102,584

Table VIII: The Impact of Resident Networks on Segment Sales

This table presents coefficient estimates of fixed effects regressions of Segment Sales Ratio on Connected Population (CP) and control variables: Segment Sales Ratio $_{ict}$ = b1+ b2* CP_{ct} + b3* Connected Board Member + Year Fixed Effect+ Country Fixed Effect. Segment Sales Ratio is sales of a foreign segment scaled by total sales reported in all foreign segments in that year. Number of Firms in Country is the total number of firms reporting a segment sale in that country. Number of Countries is the total number of countries a firm reported in its segment files. If the reported segment is a country, Connected Population refers to the number of residents in a firm's headquarter MSA connected to a foreign country scaled by total population in that MSA (CP_{ct}), and Connected Board Member takes the value of 1 if the firm has a board member who has an ethnicity tie to that country. If the reported segment is a region, Connected Population refers to the average of individual counties' connected population in a firm's headquarter MSA scaled by total population in that MSA, and Connected Board Member is the sum of connected board member values attached to each country in that region. T-stats, adjusting for clustering at the year level, are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Segment Sale Ratio	Segment Sale Ratio
Connected Population	0.05736***	0.0600***
	(4.14)	(4.44)
Connected Board Member		0.0028***
		(4.50)
Segment Sales	0.0001***	0.0002***
	(4.77)	(4.68)
Number of Firms in Country	0.0001	0.00003
	(0.54)	(0.59)
Number of Countries	-0.0054***	-0.0054***
	(18.20)	(18.38)
Year Fixed Effects	Yes	Yes
Country/Region Fixed Effects	Yes	Yes
Adj. R2	0.330	0.336
Number of Observations	39,140	39,140

Table IX: Mechanism: Tariffs and Differentiated Product Analysis

The first four columns in this table presents coefficient estimates of fixed effects regressions of product import ratio (PIR) on Connected Population (CP) and control variables: PIR_{icpt} = b1+ b2 * CP_{ct} + b3 * Tariff + b4 * CP_{ct} x Tariff + Fixed Effects. Product Import Ratio (PIR) is total amount a given firm imports from a foreign country in a given year scaled by total amount of imports of the same firm in the same year (I_{icpt} /Sum(I_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the import country scaled by total population of MSA in the most recent census (CP_{ct}). Tariff is the value of the US tariff on the given product to the given country, taken from the TRAINS dataset maintained by United Nations Conference on Trade and Development (UNCTAD). In the last two columns, we introduce a variable that denotes whether the product is a differentiated product as defined by Rauch (1999). Fixed effects for firm, year, and product are included where indicated. T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Product Import Ratio	Product Import Ratio	Product Export Ratio
Connected Population	0.0105	0.00434**	0.0079***
	(0.98)	(2.48)	(5.23)
Tariff	0.0001		
	(0.75)		
Connected Population x Tariff	-0.0018***		
	(3.19)		
Differentiated Product		0.0020***	0.0050***
		(8.89)	(9.85)
Connected Population x Differentiated Product		0.0027***	-0.0010
		(3.95)	(1.67)
MSA Fixed Effect	Absorbed	Absorbed	Absorbed
Firm x Year Fixed Effects	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes
Adj. R2	0.40	0.63	0.64
Number of Observations	34,062	563,563	422,237

Table X: Mechanism: The Impact of Resident Networks on Shipment Prices

In the first (second) column, the left hand side is the median price (logged) of a product firms located in a given MSA exported to (imported from) a given country. In the third (fourth) column, the left hand side is the price (logged) of a product a given exported to (imported from) a given country. Regressors include Connected Population, which is the number of residents in a firm's headquarter MSA connected to the export country scaled by total population of that MSA in the most recent census. Connected Board Member is a binary variable that takes a value of 1 if the firm has a board member with an ethnic background the same as the export destination or import origin. We include triple interaction fixed effect (Product x Year x Country) to capture variation coming from a given product exported to a given country in a given year. We also include MSA fixed effect to capture price variation due to firm's location. In the second column, we use price (logged) of a product (HS Code) in a given MSA imported from a given country. T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Log (Price)	Log (Price)	Log (Price)	Log (Price)
	Exports	Imports	Exports	Imports
Connected Population	0.075***	-0.001	0.0875***	0.0061
	(3.98)	(0.13)	(4.73)	(0.46)
Connected Board Member			0.0009	-0.0095**
			(0.16)	(2.10)
Product x Year x Country Fixed Effects	Yes	Yes	Yes	Yes
MSA Fixed Effects	Yes	Yes	Yes	Yes
Adj. R2	0.82	0.84	0.83	0.85
Number of Observations	402,738	498,920	451,859	563,058

Online Appendix:
"Resident Networks and Firm Trade"

Table A1: Summary Statistics on Firms that Do Not Import/Export

This table provides summary statistics of publicly traded firms that do not engage in importing (or exporting). MVE is the market value of equity calculated as the price end of calendar year prior to fiscal year end multiplied by number of shares outstanding. B/M is the book to market ratio where the book value of equity is calculated as sum of stockholders equity (SEQ), Deferred Tax (TXDB), Investment Tax Credit (ITCB) minus Preferred Stock (PREF). Leverage is long-term debt (DLTT) plus debt in current liabilities (DLC), divided by the numerator plus market equity. Past Return is the twelve month return prior to fiscal year end. ROA (return on asset) earnings before tax and depreciation (EBITDA) scaled by total assets (TA). PPE/TA is the ratio of plant, property, and equity (PPENT) scaled by total assets. The unit of observation is firm-year. Panel A (B) reports the summary statistics for public firms, which did not export (import) at all over the sample. The sample period covers 1994 to 2010.

Panel A: Firm level data for Non-Exporters

	MVE	B/M	Leverage	Past Return	ROA	PPE/TA
mean	1,896	16.515	0.216	0.172	-0.011	0.271
sd	11,222	1,721.287	0.215	1.084	1.646	0.277
p5	3	0.063	0.000	-0.694	-0.536	0.003
p10	7	0.132	0.000	-0.547	-0.255	0.010
p25	24	0.301	0.018	-0.265	-0.005	0.039
p50	108	0.579	0.163	0.039	0.071	0.161
p75	555	0.974	0.352	0.363	0.141	0.448
p90	2,569	1.605	0.527	0.844	0.213	0.741
p95	6,854	2.339	0.639	1.364	0.270	0.840
N	144,330	144,330	167,639	106,365	161,877	163,223

Panel B: Firm level data for Non-Importers

	MVE	B/M	Leverage	Past Return	ROA	PPE/TA
mean	1,824	16.929	0.218	0.170	-0.012	0.273
sd	10,942	1,743.596	0.216	1.084	1.665	0.278
p5	3	0.061	0.000	-0.694	-0.541	0.002
p10	6	0.130	0.000	-0.547	-0.259	0.010
p25	23	0.301	0.019	-0.265	-0.006	0.039
p50	102	0.581	0.165	0.038	0.071	0.164
p75	521	0.980	0.354	0.361	0.141	0.454
p90	2,418	1.617	0.530	0.838	0.214	0.745
p95	6,523	2.353	0.641	1.357	0.271	0.843
N	140,660	140,660	163,974	102,780	158,211	159,547

Table A2: Country-MSA Population-Global Region Mapping

	Country Name	Population in US	Region
1	Argentina	Argentinian	2
2	Australia	White	6
3	Austria	White	3
4	Barbados	Other Central American	2
5	Belgium	White	4
6	Belize	Mexican	2
7	Brazil	Other South American	2
8	Bulgaria	White	3
9	Cambodia	Filipino	1
10	Canada	White	7
11	Chile	Chilean	2
12	China	Chinese	1
13	Colombia	Colombian	2
14	Costa Rica	Costa Rican	2
15	Cuba	Cuban	2
16	Czech Republic	White	3
17	Denmark	White	3
18	Dominican Rep.	Dominican	2
19	Ecuador	Ecuadorian	2
20	El Salvador	Salvadorian	2
21	Finland	White	3
22	France	White	3
23	Germany	White	3
24	Greece	White	3
25	Guatemala	Guatemalan	2
26	Haiti	Dominican	2
27	Honduras	Honduran	2
28	Hong Kong	Chinese	1
29	Hungary	White	3
30	Iceland	White	3
31	India	Indian	1
32	Indonesia	Filipino	1
33	Ireland	White	4
34	Israel	White	3
35	Italy	White	3

	Country Name	Population in US	Region
36	Japan	Japanese	8
37	Korea, Rep.	Korean	8
38	Latvia	White	4
39	Lithuania	White	4
40	Malaysia	Filipino	1
41	Malta	White	3
42	Mexico	Mexican	2
43	Netherlands	White	4
44	New Zealand	White	6
45	Nicaragua	Nicaraguan	2
46	Norway	White	4
47	Panama	Panamanian	2
48	Paraguay	Paraguayan	2
49	Peru	Peruvian	2
50	Philippines	Filipino	1
51	Poland	White	4
52	Portugal	White	3
53	Puerto Rico	Puerto Rican	2
54	Romania	White	3
55	Russia	White	3
56	Singapore	Chinese	1
57	South Africa	White	5
58	Spain	Mexican	3
59	Sweden	White	3
60	Switzerland	White	3
61	Taiwan, China	Chinese	1
62	Thailand	Filipinos	1
63	Turkey	White	3
64	Ukraine	White	3
65	United Kingdom	White	3
66	Uruguay	Uruguayan	2
67	Venezuela	Venezuelan	2
68	Vietnam	Vietnamese	1
69	Croatia/Serbia/Bosnia	White	4

Table A3: Country-to-State-Level Census Ethnicity Mapping

	Country Name	Ethnicity
1	Argentina	Hispanic
2	Australia	White
3	Austria	White
4	Barbados	Hispanic
5	Belgium	White
6	Belize	Hispanic
7	Brazil	Hispanic
8	Bulgaria	White
9	Cambodia	Filipino
10	Canada	White
11	Chile	Hispanic
12	China	Chinese
13	Colombia	Hispanic
14	Costa Rica	Hispanic
15	Cuba	Hispanic
16	Czech Republic	White
17	Denmark	White
18	Dominican Rep.	Hispanic
19	Ecuador	Hispanic
20	El Salvador	Hispanic
21	Finland	White
22	France	White
23	Germany	White
24	Greece	White
25	Guatemala	Hispanic
26	Haiti	Hispanic
27	Honduras	Hispanic
28	Hong Kong	Chinese
29	Hungary	White
30	Iceland	White
31	India	Indian
32	Indonesia	Filipino
33	Ireland	White
34	Israel	White
35	Italy	White
36	Japan	Japanese
37	Korea, Rep.	Korean
38	Latvia	White
39	Lithuania	White
40	Malaysia	Filipino
41	Malta	White
42	Mexico	Hispanic
43	Netherlands	White
44	New Zealand	White
45	Nicaragua	Hispanic
46	Norway	White
47	Panama	Hispanic
48	Paraguay	Hispanic
49	Peru	Hispanic
50	Philippines	Filipino
51	Poland	White
52	Portugal	White
53	Puerto Rico	Hispanic
54	Romania	White
55	Russia	White
56	Singapore	Chinese
57	Spain	Hispanic
58	Sweden	White
59	South Africa	White
60	Switzerland	White
61	Taiwan, China	Chinese
62	Thailand	Filipino
63	Turkey	White
64	Ukraine	White
65	United Kingdom	White
66	Uruguay	Hispanic
67	Venezuela	Hispanic
68	Vietnam	Vietnamese
69	Croatia/Serbia/Bosnia	White

Table A4: Using State-level Connected Population Across All States and All Countries

Panel A of this table presents coefficient estimates of fixed effects regressions of export ratio (ER) on Connected Population (CP) and control variables: ER_{ict} = b1+ b2* CP_{ct} + b3* Connected Board Member + Fixed Effects. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Connected population is the number of residents in firm's headquarter state connected to export country scaled by total population in that state (CP_{ct}). Connected Board Member is a binary variable that takes a value of 1 if the firm has a board member with an ethnic background similar to export destination or import origin. Panel B of this table presents coefficient estimates of the following specification: IR_{ict} = b1+ b2* CP_{ct} + Fixed Effects, where import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Exports				
	Export Ratio	Export Ratio	Export Ratio	Export Ratio
Connected Population	0.027***	0.025**	0.313***	0.027***
	(2.70)	(2.50)	(5.13)	(2.94)
Connected Board Member				0.012***
				(3.31)
Firm Fixed Effects	Yes	No	No	No
Year Fixed Effects	Yes	No	No	No
Firm x Year Fixed Effects	No	Yes	No	Yes
Ethnicity Fixed Effects	Yes	Yes	Yes	Yes
State x Partner Country Fixed Effects	No	No	Yes	No
Adj. R2	0.48	0.64	0.04	0.64
Number of Observations	106,788	106,788	106,788	106,788

Table A4 (Ctd.): Using State-level Connected Population Across All States and All Countries

Panel B: Imports				
	Import Ratio	Import Ratio	Import Ratio	Import Ratio
Connected Population	0.049***	0.058***	0.381***	0.061***
	(4.08)	(4.46)	(5.01)	(4.85)
Connected Board Member				0.013***
				(4.02)
Firm Fixed Effects	Yes	No	No	No
Year Fixed Effects	Yes	No	No	No
Firm x Year Fixed Effects	No	Yes	No	Yes
Ethnicity Fixed Effects	Yes	Yes	Yes	Yes
State x Partner Country Fixed Effects	No	No	Yes	No
Adj. R2	0.39	0.57	0.06	0.57
Number of Observations	103,829	103,829	103,829	103,829

Table A5: The Impact of Ethnic Connections on Firm-Level Trade Across All MSAs and All Countries (Additional Specifications)

This table presents coefficient estimates of the following specification for the import (export) ratio (IR/ER) on Connected Population (CP) and control variables: IR_{ict} (ER_{ict}) = b1+ b2* CP_{ct} + fixed effects, where import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the export country scaled by total population in that MSA (CP_{ct}). T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Import Ratio	Import Ratio (extensive margin)	Import Ratio	Export Ratio	Export Ratio (extensive margin)	Export Ratio
Connected Population	0.022**	0.0578***	0.049***	0.039***	0.0457***	0.017***
	(2.00)	(25.56)	(6.63)	(5.14)	(30.34)	(3.31)
Firm Fixed Effects	Yes	No	No	Yes	No	No
Year Fixed Effects	Yes	No	Yes	Yes	No	Yes
Country Fixed Effects	Yes	No	No	Yes	No	No
State x Partner Country Fixed Effects	No	Yes	No	No	Yes	No
Firm x Region Fixed Effects	No	No	Yes	No	No	Yes
Adj. R2	0.39	0.003	0.64	0.46	0.002	0.60
Number of Observations	84,296	2,634,115	84,296	80,529	2,966,539	80,529

Table A6: The Impact of Ethnic Connections on Firm-Level Trade Across All MSAs and All Countries (Revised Connected Population Definitions)

First, third and fifth column of this table presents coefficient estimates of fixed effects regressions of export ratio (ER) on Connected Population (CP) and control variables: ER_{ict} = b1+ b2* CP_{ct} + b3* Connected Board Member + fixed effects. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Second, fourth and sixth column reports the fixed effects regression estimates for IR_{ict} = b1+ b2* CP_{ct} + b3* Connected Board Member + fixed effects, where import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})).
Connected population is the number of residents in a firm's headquarter MSA connected to the export country scaled by total population of that MSA in the most recent census (CP_{ct}). Connected Board Member is a binary variable that takes a value of 1 if the firm has a board member with an ethnic background the same as the export destination.
In the first two columns, we use country of origin information on the following nations to redefine connected population metric: Germany, England, Ireland, Italy, Poland, and Russia. In columns three and four, we exclude white ethnicity from the analysis. In the last two columns, we include trade and connected population information on counties in Africa to redefine connected population metric. T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Export Ratio	Import Ratio	Export Ratio	Import Ratio	Export Ratio	Import Ratio
Connected Population	0.046***	0.023*	0.036**	0.037*	0.016*	0.024***
	(5.29)	(1.82)	(2.29)	(1.87)	(1.75)	(4.83)
Connected Board Member	0.014***	0.014***	0.015***	0.013***	0.041***	0.039***
	(3.35)	(4.73)	(3.23)	(3.05)	(4.26)	(3.39)
Year Fixed Effects	Subsumed	Subsumed	Subsumed	Subsumed	Subsumed	Subsumed
MSA Fixed Effects	Subsumed	Subsumed	Subsumed	Subsumed	Subsumed	Subsumed
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm x Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R2	0.59	0.60	0.48	0.61	0.49	0.60
Number of Observations	80,529	84,926	68,771	63,178	89,800	88,629

Table A7: The Impact of Ethnic Connections on Firm-Level Trade Across All MSAs and All Countries (Industry Split)

This table presents coefficient estimates of fixed effects regressions of import ratio (IR) on Connected Population (CP) and control variables: $IR_{ict} = b1 + b2^* \, CP_{ct} + b3^*$ Connected Board Member + fixed effects. Import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the export country scaled by total population of that MSA in the most recent census (CP_{ct}). Connected Board Member is a binary variable that takes a value of 1 if the firm has a board member with an ethnic background the same as the export destination. The first two columns uses the sample in which the first two digits of the NAICS code is 21 or 22 (e.g. Utilities and Mining industries). In the last two columns, we use all industries excluding NAICS code of 42, 43, 44 and 45 (e.g. Wholesale Trade and Retail Trade). T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Import Ratio	Import Ratio	Import Ratio	Import Ratio
Connected Population	0.115***	0.116***	0.051***	0.054***
	(3.18)	(3.28)	(3.42)	(3.69)
Connected Board Member		0.031		0.016***
		(0.76)		(4.99)
Year Fixed Effects	Subsumed	Subsumed	Subsumed	Subsumed
MSA Fixed Effects	Subsumed	Subsumed	Subsumed	Subsumed
Region Fixed Effects	Yes	Yes	Yes	Yes
Firm x Year Fixed Effects	Yes	Yes	Yes	Yes
Adj. R2	0.45	0.46	0.48	0. 48
Number of Observations	1,947	2,111	68169	68169

Table A8: Instrumental Variable Analysis: Japanese Internment Camps (Additional Specifications, Including Clustering By MSA)

This table presents the instrumental variable estimation for exports (imports) in Columns 1 and 2 (3 and 4) of Panels A and B. The sample includes only the exports to (or imports from) Japan. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the export (import) country scaled by total population in that MSA in the most recent census (CP_{ct}). The instrument, Japanese Internment is a categorical variable that takes a value of 1 if the headquarter of the firm is located within 250 miles of an internment camps. Immigration from Asia refers to the growth rate of Asian-Pacific Islander ethnicities except Japanese (e.g. Korean, Chinese, Hindu and Filipino), measured as the ratio in 1990 to that of 1930. All standard errors are adjusted for clustering at the MSA level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: First Stage				
Sample Trade Firms:	Exporters	Exporters	Importers	Importers
Dependent Variable:	Connected Population	Connected Population	Connected Population	Connected Population
Japanese Internment	0.0069***	0.0065***	0.0091***	0.0087***
	(3.98)	(3.78)	(4.79)	(4.57)
Immigration from Asia		-0.0007***		-0.0007***
		(2.23)		(2.31)
Year Fixed Effects	Yes	Yes	Yes	Yes
R^2	0.60	0.62	0.70	0.71
Number of Observations	3165	3165	4804	4804

Panel B: Second Stage				
Sample Trade Firms:	Exporters	Exporters	Importers	Importers
Dependent Variable:	Export Ratio	Export Ratio	Import Ratio	Import Ratio
Instrumented	13.050***	13.271***	8.80**	8.26**
Connected Population	(3.61)	(3.43)	(2.38)	(2.07)
Immigration from Asia		0.0030		-0.0086*
		(0.34)		(0.82)
Year Fixed Effects	Yes	Yes	Yes	Yes
R^2	0.03	0.03	0.04	0.04
Number of Observations	3165	3165	4804	4804

Table A9: OLS Analysis: Japanese Internment Camps

This table presents the OLS estimation for speculations reported in the main text Table 4. Connected population is the number of Japanese people in a firm's headquarter MSA scaled by total population of the MSA in the most recent census (CP_{ct}). Immigration from Asia refers to the growth rate of Asian-Pacific Islander ethnicities except Japanese (e.g. Korean, Chinese, Hindu and Filipino), measured as the ratio in 1990 to that of 1930. Immigration from Asia refers to the growth rate of Asian-Pacific Islander ethnicities except Japanese (e.g. Korean, Chinese, Hindu and Filipino), measured as the ratio in 1990 to that of 1930. Population density refers to 1940 population (in thousands) scaled by area of MSA per square mile. Other Asian Ethnicities refers to Korean, Chinese, Hindu and Filipino population in an MSA (in millions). West Coast dummy takes a value of 1 if the internment camp is located in one of the west coast states, e.g. California, Oregon and Washington. All standard errors are adjusted for clustering at the year level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Exporters	Exporters	Exporters	Importers	Importers	Importers
Dependent Variable:	Export Ratio	Export Ratio	Export Ratio	Import Ratio	Import Ratio	Import Ratio
Connected Population	9.159***	6.205*	8.738**	4.040***	4.218*	11.654***
	(6.92)	(1.79)	(2.48)	(4.23)	(1.70)	(4.66)
Immigration from Asia		-0.004	-0.005		-0.019***	-0.020***
		(0.63)	(0.77)		(3.35)	(3.65)
Population Density		-0.000**	-0.000*		-0.000**	-0.000
		(2.11)	(1.81)		(2.12)	(1.50)
Other Asian Ethnicities		0.08	0.043		-0.036	-0.100**
		(1.31)	(0.70)		(0.75)	(2.13)
Ln (MSA Population in 2000)		-0.015**	-0.013*		-0.003	-0.003
		(1.98)	(1.83)		(0.48)	(0.41)
West Coast Dummy		0.017	-0.003		-0.005	-0.070**
		(0.48)	(0.10)		(0.16)	(2.32)
Year Fixed Effects	No	No	Yes	No	No	Yes
R^2	0.01	0.02	0.03	0.01	0.02	0.05
Number of Observations	3165	3165	3165	4804	4804	4804

Table A10: Instrumental Variable Analysis: Japanese Internment Camps (Using 125-Mile Threshold)

This table presents the instrumental variable estimation using Japanese Internment Camps. Panels A and B present results for exports (imports) in Columns 1 and 2 (3 and 4). The sample includes only the exports to (or imports from) Japan. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Connected population is the number of Japanese people in a firm's headquarter MSA scaled by total population of the MSA in the most recent census (CP_{ct}). Immigration from Asia refers to the growth rate of Asian-Pacific Islander ethnicities except Japanese (e.g. Korean, Chinese, Hindu and Filipino), measured as the ratio in 1990 to that of 1930. Population density refers to 1940 population (in thousands) scaled by area of MSA per square mile. Other Asian Ethnicities refers to Korean, Chinese, Hindu and Filipino population in an MSA (in millions). West Coast dummy takes a value of 1 if the internment camp is located in one of the west coast states, e.g. California, Oregon and Washington. The instrument, Japanese Internment is a categorical variable that takes a value of 1 if the headquarter of the firm is located within **125** miles of an internment camp. All standard errors are adjusted for clustering at the year level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: First Stage

Sample Trade Firms:	Exporters	Exporters	Importers	Importers
Dependent Variable:	Connected Population	Connected Population	Connected Population	Connected Population
Japanese Internment	0.0040***	0.0007***	0.0042***	0.0014***
	(14.92)	(3.99)	(30.27)	(16.58)
Immigration from Asia		0.0001***		-0.0001***
		(18.55)		(16.95)
Population Density		0.00074***		-0.0006***
		(13.37)		(11.25)
Other Asian Ethnicities		0.0090***		0.0079***
		(20.22)		(17.96)
Ln (MSA Population in 2000)		-0.0002***		-.0003**
		(10.07)		(17.58)
West Coast Dummy		0.0080***		0.0096***
		(28.58)		(22.55)
Year Fixed Effects	Yes	Yes	Yes	Yes
R^2	0.40	0.86	0.41	0.72
Number of Observations	3165	3165	4804	4804

Table A11: Instrumental Variable Analysis with Continuous Measure: Japanese Internment Camps

This table presents the instrumental variable estimation for exports (imports) in Columns 1 and 2 (3 and 4) of Panels A and B. The sample includes only the exports to (or imports from) Japan. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the export (import) country scaled by total population in that MSA in the most recent census (CP_{ct}). The instrument, Interned Population/MSA Population is the ratio of number of interned Japans scaled by the population of MSA in 1940. Immigration from Asia refers to the growth rate of Asian-Pacific Islander ethnicities except Japanese (e.g. Korean, Chinese, Hindu and Filipino), measured as the ratio in 1990 to that of 1930. All standard errors are adjusted for clustering at the year level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: First Stage

Sample Trade Firms:	Exporters	Exporters	Importers	Importers
Dependent Variable:	Connected Population	Connected Population	Connected Population	Connected Population
Interned Population/MSA Population	0.0358***	0.0323***	0.0328***	0.0292***
	(12.33)	(11.79)	(12.50)	(11.61)
Immigration from Asia		-0.0010***		-0.0013***
		(23.55)		(27.72)
Year Fixed Effects	Yes	Yes	Yes	Yes
R^2	0.45	0.48	0.47	0.51
Number of Observations	3165	3165	4804	4804

Panel B: Second Stage

Sample Trade Firms:	Exporters	Exporters	Importers	Importers
Dependent Variable:	Export Ratio	Export Ratio	Import Ratio	Import Ratio
Instrumented Connected Population	15.688***	16.352***	11.91***	11.703***
	(4.32)	(4.16)	(3.89)	(3.59)
Immigration from Asia		0.0030		-0.0027
		(1.09)		(0.52)
Year Fixed Effects	Yes	Yes	Yes	Yes
R^2	0.02	0.02	0.03	0.03
Number of Observations	3165	3165	4804	4804

Table A12: Instrumental Variable Analysis with First Stage Estimated Only with Cross-Sectional MSA Data; and Analysis of Japanese Population Directly Following Camp Closures

Panel A presents the second-stage instrumental variable estimation for exports (imports) in Columns 1 and 2 (3 and 4) of Table IV where the first-stage is estimated using only cross-sectional data. The sample includes only the exports to (or imports from) Japan. Export Ratio (ER) is total amount a given firm exports to a destination country in a given year scaled by total amount of exports of the same firm in the same year (E_{ict} /Sum(E_{it})). Import ratio (IR) is total amount a given firm imports from a country in a given year scaled by total amount of imports of the same firm in the same year (I_{ict} /Sum(I_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the export (import) country scaled by total population in that MSA in the most recent census (CP_{ct}). To obtain the Instrumented Connected Population for each MSA, we regress Connected Population on Japanese internment dummy using only a cross-sectional regression. Immigration from Asia refers to the growth rate of Asian-Pacific Islander ethnicities except Japanese (e.g. Korean, Chinese, Hindu and Filipino), measured as the ratio in 1990 to that of 1930. Panel B regresses the change in Japanese population (scaled by state population) from 1940 to 1950 on Internment Camp population (scaled by state population) for all states except Hawaii and Alaska (which did not become states until 1959). All standard errors are adjusted for clustering at the year level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Second Stage (First-Stage in Table V Panel A)

Sample Trade Firms:	Exporters	Exporters	Importers	Importers
Dependent Variable:	Export Ratio	Export Ratio	Import Ratio	Import Ratio
Instrumented	22.417***	22.345***	19.908***	18.861***
Connected Population	(4.67)	(4.46)	(3.68)	(4.93)
Immigration from Asia		-0.001		-0.009
		(0.09)		(-2.00)
Year Fixed Effects	Yes	Yes	Yes	Yes
R^2	0.02	0.02	0.04	0.04
Number of Observations	3165	3165	4804	4804

Panel B: Change in Japanese Population Directly Following Camp Closures

Dependent Variable:	Change in Connected Pop (1940 to 1950)
(Camp Pop/ State Pop)	3.63***
	(2.98)
R^2	0.15
Number of Observations	49

Table A13: Real Effects of Strategic Trading Activity (Alternative Definition of Top Exporters)

This table reports panel regressions of different measures of future firm-level real outcomes on lagged strategic trading activity. For exports, we first create buy/sell signals based on a firm's export amount in a given month, its destination country, and the match between the destination country's ethnicity and the firm's headquarter MSA's (metropolitan statistical area) ethnic composition. We use the American Communities Project (ACP) ethnicity classifications, and match these to destination countries as shown in Table A2. In every year for each MSA, we compute the share of each ethnicity that resides in each MSA. We then rank the share of each ethnicity across all MSAs in the US. In columns 1-4: the buy signal equals one if (i) a firm's share of total industry exports to a given country in a given month is above the median, and (ii) the firm is located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3; and the sell signal equals one if (i) a firm's share of total industry exports to a given country in a given month is above the median, but (ii) the firm is *not* located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3. In columns 5-8: the buy signal equals one if (i) a firm's share of total industry exports to a given country in a given month is below the median, and (ii) the firm is located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3; and the sell signal equals one if (i) a firm's share of total industry exports to a given country in a given month is below the median, but (ii) the firm is *not* located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3. In all 8 columns, we define a firm as strategic exporter if the firm has at least one buy signal for any of its exports in a given year; a firm is defined as a non-strategic exporter if it has zero buy signals in a given year, and has at least one sell signal. The dependent variables are: 1) future sales (in year t+1) divided by lagged assets (in year t); and 2) ROA (defined as future EBITDA in year t+1 divided by lagged assets in year t). Control variables include Size (log of market capitalization), B/M (log of the book-to-market ratio), Leverage (long-term debt in year t divided by lagged assets in year t), and Cash (future Cash in year t+1 divided by lagged assets in year t). Fixed effects for time (year) and firm are included in all regressions. t-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Above-Median Exporters				Below-Median Exporters			
	$Sales_{t+1}/Assets_t$		$EBITDA_{t+1}/Assets_t$		$Sales_{t+1}/Assets_t$		$EBITDA_{t+1}/Assets_t$	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Strategic Exporter	0.032***	0.027***	0.006	0.006	-0.013	-0.013	0.003	0.009
	(3.79)	(3.14)	(1.10)	(1.11)	(0.87)	(0.84)	(0.36)	(0.82)
Non-Strategic Exporter	-0.001	-0.001	-0.007**	-0.007**	-0.006	0.000	0.014*	0.017**
	(0.27)	(0.27)	(2.32)	(2.56)	(0.74)	(0.06)	(1.86)	(2.27)
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes	No	Yes	No	Yes
Adjusted R^2	0.90	0.89	0.74	0.69	0.88	0.89	0.68	0.69
No. of Obs.	14,260	14,203	14,205	14,152	14,260	14,203	14,205	14,152

Table A14: Portfolio Returns to Strategic Trading Activity

This table presents value-weight returns to calendar-time portfolios that buys stocks of strategic exporters and sell stocks of non-strategic exporters. In Panel A, we first create buy/sell signals based on a firm's export amount in a given month, its destination country, and the match between the destination country's ethnicity and the firm's headquarter MSA's (metropolitan statistical area) ethnic composition. We use the American Communities Project (ACP) ethnicity classifications, and match these to destination countries as shown in Table A2. In every year for each MSA, we compute the share of each ethnicity that resides in each MSA. In every year for each MSA, we compute the share of each ethnicity that resides in each MSA. We then rank the share of each ethnicity across all MSAs in the US. The buy signal equals one if (i) a firm's share of total industry exports to a given country in a given month is ranked in the top 3, and (ii) the firm is located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3. The sell signal equals one if (i) a firm's share of total industry exports to a given country is ranked in the top 3, but (ii) the firm is *not* located in an MSA where the MSA's ethnicity share across all MSAs in the US is ranked in the top 3. We define a firm as strategic exporter if the firm has at least one buy signal for any of its exports in a given month. A firm is defined as a non-strategic exporter if it has zero buy signals in a given month, and has at least one sell signal. Each month we construct calendar-time portfolios that buy stocks of strategic exporters and sell non-strategic exporters. Portfolios are rebalanced monthly, and stocks are held for one month. The first row of each panel presents excess returns (raw returns minus the risk-free rate), the second row shows DGTW-adjusted returns, the third row shows CAPM alphas, the fourth row shows Fama-French 3-factor alphas, and the fifth row shows Carhart 4-factor alphas. In Panel B, we replicate the calendar time portfolio approach from Panel A for our imports sample. *t*-stats, adjusted for clustering at the month level, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Export Value-Weight Portfolio Returns			
	Long Return	Short Return	(L-S) Return
Excess returns	0.92***	0.42	0.50**
	(3.07)	(1.38)	(2.15)
DGTW-adjusted returns	0.28	-0.11	0.39**
	(1.52)	(1.16)	(2.23)
CAPM alpha	0.62***	-0.02	0.64***
	(2.72)	(0.19)	(2.93)
Fama-French 3-factor alpha	0.64***	-0.02	0.66***
	(3.30)	(0.24)	(3.18)
Carhart 4-factor alpha	0.53***	-0.04	0.57***
	(2.82)	(0.41)	(2.78)

Table A14 (ctd.): Portfolio Returns to Strategic Trading Activity

Panel B: Import Value-Weight Portfolio Returns			
	Long Return	Short Return	(L-S) Return
Excess returns	0.87**	0.42	0.45*
	(2.31)	(1.38)	(1.75)
DGTW-adjusted returns	0.34	-0.11	0.45*
	(1.52)	(1.36)	(1.92)
CAPM alpha	0.43*	-0.02	0.44*
	(1.75)	(0.15)	(1.71)
Fama-French 3-factor alpha	0.43*	-0.01	0.44*
	(1.74)	(0.06)	(1.68)
Carhart 4-factor alpha	0.37	-0.01	0.38
	(1.48)	(0.11)	(1.45)

Table A15: Connected Board Members and Returns

This table reports predictive regressions of future month returns on connectedness of a firm's board from 1999-2010. The independent variable of interest is Pct of Board Strategically Connected, which is equal to the percentage of the board of directors that are from a foreign country to which the firm is either importing from, or exporting to, in the month prior. Other control variables include Size, the natural logarithm of market capitalization, B/M, the natural logarithm of the ratio of book value to market value, Past Month Returns, returns in the month prior to the earnings announcement, and Past Returns (t-2,t-12), return from month t-2 to t-12. In Columns 1 and 2, the full sample of firms are included, while Columns 3 and 4 are run on only the sample of firms that have at least one strategically connected board member. Month fixed effects and Industry-Month fixed effects are included where indicated. t-stats, adjusting for clustering at the month level, are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent Variable:	Future-month returns			
Sample:	Full Sample		Only if have at least one connected board member	
	(1)	(2)	(3)	(4)
Pct of Board Strategically Connected	0.082**	0.091***	0.075**	0.077**
	(2.41)	(2.80)	(2.10)	(2.13)
Board Size	0.000	0.000	0.000	0.000
	(0.66)	(1.08)	(0.57)	(0.37)
Size	-0.002***	-0.002***	-0.003***	-0.002***
	(2.81)	(2.67)	(2.96)	(2.68)
B/M	0.011*	0.011*	0.012	0.011
	(1.87)	(1.80)	(1.58)	(1.36)
Past Ret(t-2,t-12)	-0.002	-0.002	-0.001	-0.001
	(0.59)	(0.54)	(0.18)	(0.18)
Past Month Returns	-0.034**	-0.032**	-0.026	-0.027
	(2.33)	(2.27)	(1.33)	(1.48)
Time Fixed Effects	Yes		Yes	
Industry x Time Fixed Effects		Yes		Yes
Adjusted R^2	0.23	0.28	0.26	0.36
No. of Obs.	38,040	38,040	11,039	11,039

Table A16: Errors in Analyst Forecasts and Earnings Surprises

This table reports regressions of earnings forecast error and earnings surprise cumulative abnormal returns (CARs) on strategic trading of firms. In the first two columns, the dependent variable is Earnings CAR. This is defined as the cumulative abnormal return (t-1,t+1) around the earnings date. The dependent variable in Column 3 and Column 4 is earnings Forecast Error. This is the absolute value of the actual reported earnings (EPS) value minus the consensus mean of the most recent analyst forecasts (in the month leading up to the announcement), scaled by the absolute value of actual EPS reported. This is then winsorized at the 0.01 level. The main variables of interest, Strategic Exporter/Importer, are defined in Table VI. Other control variables include Size, the natural logarithm of market capitalization, B/M, the natural logarithm of the ratio of book value to market value, Past Month Returns, returns in the month prior to the earnings announcement, Past Returns (t-2,t-12), return from month t-2 to t-12, and (Actual EPS-Estimate), which is the magnitude of the earnings surprise in the earnings announcement. Month and industry fixed effects are included where indicated. t-stats, adjusting for clustering at the month level, are reported in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Earnings CAR		Forecast Error		Earnings CAR		Forecast Error	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Strategic Exporter	0.487*	0.577**	2.861**	2.874**				
	(1.90)	(2.24)	(2.48)	(2.53)				
Non-Strategic Exporter	0.046	0.063	0.414	0.233				
	(0.36)	(0.50)	(0.78)	(0.43)				
Strategic Importer					0.634**	0.665***	3.880***	3.886***
					(2.58)	(2.66)	(2.66)	(2.64)
Non-Strategic Importer					-0.046	-0.03	-1.034*	-1.357**
					(0.41)	(0.27)	(1.86)	(2.42)
Past Month Returns	-0.93	-0.914	-3.544	-3.841	-1.114	-1.131	-2.138	-2.036
	(1.15)	(1.13)	(0.91)	(0.99)	(1.40)	(1.41)	(0.65)	(0.62)
Size	-0.083**	-0.072*	-3.693***	-3.678***	-0.099**	-0.090**	-3.935***	-3.981***
	(2.04)	(1.77)	(18.10)	(17.92)	(2.50)	(2.25)	(23.12)	(23.17)
B/M	-0.072	-0.053	6.378***	6.327***	-0.137	-0.136	6.569***	6.464***
	(0.60)	(0.44)	(14.41)	(14.19)	(1.31)	(1.30)	(15.21)	(14.78)
Past Ret(t-2,t-12)	0.007	-0.007	-4.465***	-4.538***	-0.138	-0.14	-4.519***	-4.639***
	(0.04)	(0.05)	(3.78)	(3.78)	(0.77)	0.79)	(5.39)	(5.46)
(Act EPS – Est)	3.594***	3.585***			4.189***	4.19***		
	(12.40)	(12.43)			(17.01)	(16.97)		
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects		Yes		Yes		Yes		Yes
Adjusted R^2	0.08	0.08	0.11	0.11	0.07	0.07	0.11	0.11
No. of Obs.	15,951	15,951	15,951	15,951	20,383	20,383	20,384	20,384

Table A17: Tariff and Differentiated Product Analysis (Additional Specifications)

The first four columns in this table presents coefficient estimates of fixed effects regressions of product import ratio (PIR) on Connected Population (CP) and control variables: PIR_{icpt} = b1+ b2 * CP_{ct} + b3 * Tariff + b4 * CP_{ct} x Tariff + Fixed Effects. Product Import Ratio (PIR) is total amount a given firm imports from a foreign country in a given year scaled by total amount of imports of the same firm in the same year (I_{icpt} /Sum(I_{it})). Connected population is the number of residents in a firm's headquarter MSA connected to the import country scaled by total population in that MSA in the most recent census (CP_{ct}). Tariff is the value of the US tariff on the given product to the given country, taken from the TRAINS dataset maintained by United Nations Conference on Trade and Development (UNCTAD). In the last two columns, we introduce a variable that denotes whether the product is a differentiated product as defined by Rauch (1999). Fixed effects for firm, year, and product are included where indicated. T-stats, clustered by year, are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

	Product Import Ratio	Product Import Ratio	Product Import Ratio	Product Import Ratio	Product Export Ratio
Connected Population	0.0074***	0.0076***	0.0020	0.0029***	0.0018***
	(3.93)	(2.99)	(1.06)	(2.29)	(8.39)
Tariff	0.0001	0.0002	0.0004		
	(0.73)	(0.42)	(1.61)		
Connected Population x Tariff	-0.0022***	-0.0015***	-0.0014***		
	(4.49)	(3.60)	(3.48)		
Differentiated Product				0.0074***	0.0049***
				(2.41)	(9.10)
Connected Population x Differentiated Product				0.0042***	-0.0011
				(4.61)	(1.37)
Firm Fixed Effects	Yes	No	Yes	Yes	Yes
Year Fixed Effects	Yes	No	Yes	Yes	Yes
MSA Fixed Effect	No	Yes	No	No	No
Product Fixed Effects	No	Yes	Yes	No	No
Adj. R2	0.40	0.23	0.48	0.41	0.47
Number of Observations	34,062	34,062	34,062	563,552	422,237