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 strong 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 links. Firms that exploit their local networks (strategic traders) see significant increases in future sales growth and profitability, and outperform other importers and exporters by 5%-7% per year in risk-adjusted stock returns. In sum, our results document a surprisingly large impact of immigrants' economic role as conduits of information 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. As this becomes increasingly true, 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 information networks that firms can access. We show that these networks have a first-order impact on the trade decisions undertaken by these firms, both in terms of imports and exports. We further explore how quickly the capital markets can separate the "strategic" importers and exporters from other firms, and show that the market appears to have a difficult time deciphering even openly observable channels.

Increasing exposure to foreign operations has been a consistent time-series trend in the United States. The Bureau of Economic Analysis's National Income and Product Accounts (NIPA) broad measure of economy-wide firm profits shows that the percentage of NIPA national profits coming from overseas has increased from roughly 21% in 2000 to 38% in 2010 (Hodge (2011)). Further, this is not a small firm phenomenon, as the entire S&P 500 received 46% of their sales revenue from overseas in 2010, growing from only 30% ten years prior.

Yet although a large and growing number of public firms engage in international transactions, we still do not have a full understanding of *why* firms choose to trade with firms in certain countries, and how these decisions affect firm value. To shed light on this question, we exploit variation in ethnic population breakdowns across metropolitan statistical areas (MSAs) in the U.S. Specifically, we examine how local residents' ties to their home-countries can play a role in creating bilateral trade linkages and whether (and importantly *which of*) these trade links are value-enhancing for firms.

We do this by focusing on the import and export activity of all US publicly-traded firms for the past seventeen years. We obtain import and export data 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.

An example of our identification strategy is the following. Suppose we consider a firm located in Jersey City, New Jersey, where a common ethnicity is Indian. We first test whether this firm is more likely to trade (either import or export) with a firm in India, than a firm located in Bangor, Maine, where Indian is not a common ethnicity. We hypothesize that local ethnicities may help lower the information barriers for local companies, and thus that firms may enjoy benefits from this local advantage. In addition, ethnic make-up may also proxy for local demand for a firm's goods, which can impact optimal importing decisions. We then test the value enhancement of these links.

We find evidence 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 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"). A one standard deviation increase in connected population increases the amount the firm exports to (imports from) a country by 63%, t=4.71 (33%, t=2.66).

Next 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 links. 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, and had an enduring impact on these areas as many internees ultimately settled around these camps, having no home or work to return to when the war ended. We find that sixty years later, these internment camp locations had significantly higher Japanese populations. Further, using the instrumented value of Japanese population (with internment

camp locations as an instrument), we show that this exogenously determined Japanese ethnic population density had a large and significant impact on local firm trading decisions, establishing more cleanly a causal link from surrounding ethnic population to firm-level import and export decisions.

We also show that this increased importing (and exporting) provides a tangible benefit to the firm in terms of increased sales and increased profitability in their respective industries. For instance, "strategic exporters" (i.e., firms that export to a country that has a large connected population immediately surrounding its firm headquarters) significantly increase their future profitability (EBITDA/Assets) by over 0.9%, relative to a median profitability figure of roughly 8.3%.

We next go on to explore whether the market understands the value of the strategic use of information networks, and the resultant import and export decisions of firms. We find evidence that it does not. For instance, strategic exporters outperform other firms that export to the *same* countries but that do not have local information networks by 50 basis points per month (t=2.15) in excess returns, and 57 basis points per month (t=2.78) in 4-factor abnormal returns. Importantly, this outperformance is unaffected by known risk determinants, and does not reverse, suggesting that this strategic trading behavior is truly important for fundamental firm value, but is only gradually realized by the market.

We also run a number of tests to better establish our proposed mechanism. For example, if it really is these information linkages that are increasing the amount of importing (and exporting) to the countries represented by the connected population, then we might expect that when these connections are more valuable, we should see these connections utilized more heavily. 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 information network connection, we see significantly more strategic trading by firms (i.e., trading to 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).[1] These findings are consistent with the variation in the value of the network causing variation in strategic trading.

Next, we dig deeper into 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 or management of all firms, we do collect the ethnic makeup of the firm's entire board of directors 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 state, 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=2.87) to countries from which they have a connected board member. Further, as is the case with strategic importers (exporters), the market does not fully understand the value of these connected board members: firms that exploit these connected board members in their trading decisions have predictable future positive abnormal stock returns.

We show that in addition to market participants not fully realizing the value of the information network for strategic importing and exporting firms, sell-side analysts make the same mistakes. Specifically, analysts are significantly less accurate in their earnings forecasts of strategic importers and exporters. Further, when their increased sales and profitability are reported at quarterly earnings announcements, strategic importers and exporters have significantly more positive earnings surprise returns. Lastly, we show that the effect of networks in

[1] See Rauch (1999, 2001) and Rauch and Trindade (2002) for evidence that network benefits in trade are strongest for differentiated products.

international transactions is not confined to imports and exports. Using information disclosed in segment filings, we show that firms are more likely to report sales in countries that have an ethnic presence around their firm headquarters.

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 connections on firm-level trade. Section IV establishes the returns to strategic importers and exporters that utilize these connected information networks. Section V concludes.

I. Background and Literature Review

Our research adds to a large 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 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 distance to domestic market is not a significant factor in entry timing; whereas Loree and Guisinger (1995) argue that it is. Our paper demonstrates that local ethnic populations around the headquarters of a firm impact the bilateral trade relations to connected countries. We also show that board members who are connected to

trade partners through their nationalities provide information advantages that generate value for firms.

Our paper also links to a vast literature investigating the drivers and implications of international trade. 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. Gould (1994) shows that immigrant ties in the United States (and Canada) play a role in increasing bilateral trade flows and conclude that immigrant ties (or links) provide knowledge of home-country markets, language, preferences, and personal contacts that have the potential to decrease trading transactions costs.

In particular, we add to the growing literature on the role that social 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. Rauch and Trindade (2002) demonstrate that ethnic Chinese networks, proxied by ethnic Chinese population shares, help increase bilateral trade, particularly for differentiated products.[2] Meanwhile Chaney (2012) develops a theoretical model where firms only export to countries where they have a contact, and shows that firms use their networks of contacts to search for new trading partners; he also shows empirically that this model is consistent with the dynamics of firm-level exports in France.[3] Finally,

[2] See also Rauch (2001) and Rauch and Casella (1998) for theory and evidence on information-sharing networks among internationally dispersed ethnic minorities.

[3] 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

within-country evidence also highlights the importance of social networks for trade; for example, Combes, Lafourcade and Mayer (2005) demonstrate that networks facilitate trade between regions within France; Garmendia, Llano, Minondo and Requena (2012) show that social and business networks have a particularly strong impact on the extensive margin of trade in Spain; and Burchardi and Hassan (2013) show that West German regions that have closer social links with East Germany grew faster and invested more into East Germany after the German reunification. We add to this literature by isolating the effects of local ethnicities as a determinant of firm-level imports and exports to foreign trading partners.

Lastly, our research is broadly related to prior studies that analyze investors' delayed and biased reactions to information. The basic theme of this strand of literature is that, if investors have limited resources and capacity to collect, interpret, and finally trade on value-relevant information, we would expect asset prices to incorporate information only gradually. One of the contributions of our paper is to highlight the importance of scrutinizing local resources in understanding asset prices. If investors pay less attention to firms exploiting local advantages, asset prices may exhibit predictable patterns. There is an extensive literature on investors' limited attention to information. On the theoretical side, numerous studies, such as Merton (1987), Hong and Stein (1999), and Hirshleifer and Teoh (2003), argue that, in economies populated by investors subject to binding attention and resource constraints, delayed information flows can lead to expected returns that are not explained by traditional asset pricing models. Subsequent empirical studies find evidence that is largely consistent with these models' predictions. For example, Huberman and Regev (2001), Barber and Odean (2006), DellaVigna and Pollet (2006), Hou (2006), Hong, Torous, and Valkanov (2007), and Cohen and Frazzini (2008), Huang (2011), and Nguyen (2011) find that investors respond quickly to information that catches their attention (e.g., news printed on the New York

microeconomic idiosyncratic shocks can be transmitted through supplier-customer links and impact aggregate volatility in the economy.

Times, stocks that have had extreme returns or trading volume in the recent past, and stocks that more people follow), but tend to ignore information that is less salient yet nonetheless essential to firm values. In addition, Cohen and Lou (2011) find that investors have difficulty in incorporating industry news into conglomerates (as opposed to simple stand-alone firms in the same industry), while Cohen, Diether, and Malloy (2011) find that investors do not understand and price the predictable innovation ability of firms. These behaviors on the part of investors usually result in significant asset return predictability in financial markets. We document exactly this type of return predictability by showing that the stock market is slow to recognize the value of firms' strategic use of information networks, and the resultant import and export decisions of firms.

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 laden" 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 laden is a legal document between the shipper and the carrier that outlines the type, quantity and destination of the good being carried. Our data includes standard information provided on bill of laden and value added fields such as content (HS Code level) and the value of the cargo, both of which are estimated by Piers. We match Piers data to public firm names using shipper (for exports) and receiver (for imports) firm names using name matching algorithms. Panels A and B of Table I reports 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 4 destination and target ports for imports and exports.[4]

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.[5] 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 zipcodes of firm headquarters, we use Census U.S. Gazetteer files for 1990 and 2000.[6]

Unlike Census data, ACP data help identify the national origins of Hispanic and Asian ethnicities. ACP data allows us to disaggregate Hispanic ethnicity to 19 nations and Asian ethnicities to 7 nations. In cases where we cannot map a given nation that exists in 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, Malaysia, Cambodia and Malaysia. Appendix Table A2 presents our country-to-MSA population mappings.

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

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[4] 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. (https://help.cbp.gov/app/answers/detail/a_id/285/kw/19%20CFR.%20103.31/session/L3NpZC9TbmxmdW5Haw%3D%3D). 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.

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

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

We determine the nationality of corporate board members 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 also obtain Harmonized System Code (HS Code) level tariff information from TRAINS dataset provided by United Nations Conference on Trade and Development (UNCTAD). A typical entry in this dataset would be as follows: In year 2003, U.S. applied 4% tariff rate for Brazil nuts (HS Code 080120) to Brazil. Tariff information contains not only most favorite 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 Connections on Firm-Level Trade

A. Import and Export Decisions of Firms

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). As joint location can be influenced by many factors, Section A can be seen as documenting the base relationship between surrounding ethnicities and firm trade decisions, while we establish a cleaner causal relationship in Section C.

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 in a given year scaled by the total amount of exports by the firm in that year (E_{ict} /Sum(E_{it})).[7] 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 information 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.).[8] 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. We add fixed effects across specifications in Columns 1-4 for firm, year, MSA, country, firm x year, and MSA x country, with the coefficient on Connected Population remaining large and significant. In terms of magnitude, the coefficient of 0.039 (t=4.71) on CP_{ct} in Column 2 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% increase, which is large in magnitude. 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.[9] 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 large economic impact in magnitude.

[7] 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 ($p<0.01$).

[8] 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.

[9] These tests are constructed similarly to those in the first four 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).

Panel B presents the identical set of tests using Import Ratio as the dependent variable. As in the export tests, we find that ethnic information links are strong positive predictors of firm-level import behavior. The magnitude of this effect is again large: the coefficient of 0.032 (t=2.70) on CP_{ct} in Column 2 implies that for a one-standard deviation increase in CP_{ct}, a firm's Import Ratio increases by 1.05%, which this 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 to a given country by 1.85%. Compared to the mean import extensive margin of 3.22%, this again implies a significant economic impact in magnitude.

A.1 Connected Board Members and Trade Decisions

We next explore in more depth the exact manner in which the information is transferred across the network. While we cannot obtain the ethnic make-up of the entire employee base or management of all firms, we do collect the ethnic makeup of the firm's entire board of directors 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. 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 board of directors is Connected Board Member, which is a categorical variable equal to 1 if the firm has 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 4 of Panel A, the coefficient estimate of 0.014 (t=2.87) implies that a firm exports 68% more to countries from which it has a connected board member.

B. Tariff and Differentiated Product Analysis

In our next set of tests, we exploit 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. These tariffs are gathered from TRAINS dataset maintained by United Nations Conference on Trade and Development (UNCTAD). We also include the interaction term between tariff cuts and firm-country information 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 IV presents the results of these tests. Specifically, we run panel regressions of import ratios on firm-country information links, plus the tariff variables described above, along with various fixed effects including firm-, year-, and product-fixed effects. From Column 3, the coefficient on the interaction term (Connected Population*Tariff), which is negative and significant (=-0.0022, t=4.49), suggests that Connected Population has only roughly 20% 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 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.[10] Rauch (1999) provides a theory that the immigrant-link effect on trade should be greatest for differentiated products, and smallest for homogeneous products traded on organized exchanges. Column 5 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.

Taken as a whole, the results in this section are consistent with firms exporting (importing) significantly more to (from) countries with which they have stronger information links. Both effects are economically large, and indicate that firms exploit their information networks when making their trade decisions. Further, at times when particular products are most attractive (such as after a tariff cut), the impact of these information linkages on product-level import behavior is most pronounced.

C. 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 be a direct causal channel through 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

[10] 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)

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 to either exogenously "drop" firms in random locations, or exogenously drop ethnic populations in random locations, and then run our test to see if these exogenously matched firm-surrounding ethnicities product the same impact. We run exactly this latter experiment by examining the Japanese Internment Camps of World War II.

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[11] that if there were an invasion by Japan, these citizens might work against US interests. The camps were constructed in 1942, and held nearly 115,000 Japanese and Japanese-Americans. The internment camps were distributed unevenly throughout the US, as shown in the Figure I, 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 of the relocation camps. To illustrate this, we collected data from the 1940 for the states that had internment camps, and show this also in Figure 1. From this, for instance, Arkansas had only 3 people of Japanese descent in the 1940 census. Accordingly, the number of Japanese that were interned in these camps represented a substantive shock to the total Japanese population in these states.

[11] The order to create the camps and authorize the relocations themselves was Executive Order 9066, signed into law on February 19, 1942.

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, causing the assets to sell at depressed prices (Okamoto (2000)). Added to this were the acts of violence and discrimination faced by those that did try to return to their former West Coast home cities, resulting 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. However, we need to formally establish the fact that they 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 V. It is simply testing whether the states that housed internment camps see a larger percentage of Japanese origin population today. The dependent variable is thus *Connected Population* from Table III, the percentage of the population of Japanese origin. The independent variable *Japanese Internment Camp* is then a categorical variable indicating whether there was an Internment Camp in that state or not. In this analysis we are restricting the sample solely to connections to Japan, and so are only finely estimating the varying connections to Japan across the geographic MSAs given the Japanese Internment relocation camp locations.

From Panel A of Table V, we see that MSAs in states that had a Japanese Internment camp during World War II have a significantly higher fraction of Japanese origin connected population today. All four columns (run for the MSAs that export to Japan in the Columns 1 and 2, and MSAs that import from Japan in Columns 3 and 4) deliver this same message. Column 2 (4) addresses that some of the MSAs that had Japanese Internment Camps were located along the western coast, and so may have more Japanese origin citizens because of this geographic proximity to Japan. So, we include fixed effects for all states on the western coast and Hawaii. Even including these fixed effects, the impact is large and significant. From Column 2, the coefficient of 0.0017

(t=22.53), implies a 45% larger current Japanese population in areas surrounding Japanese Internment Camps of World War II relative to areas without. For the same specification for Japanese importing MSAs from Column 4, the coefficient of 0.0019 (t=27.01) suggests a 50% larger current Japanese population in areas surrounding Internment Camps relative to areas without.

This provides strong evidence for the first stage of the instrumental variable test. For the second stage, we then regress 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 Internment Camp in the surrounding area in World War II. These second stage regressions are shown in Panel B of Table V. All four columns show that this instrumented connected population has a large and significant impact on trade activity today. For instance, the coefficient in Column 2 of 60.612 (t=4.89) implies that a one standard deviation increase in connected population increases the Export Ratio by 65% (from 22.5% to 37.2% of exports to Japan). For imports, the estimated coefficient in Column 4 of 45.099 (t=2.28) implies that a one standard deviation increase in connected population increases the Import Ratio by 62% (from 21.9% to 35.5% of imports from Japan). These are similar in magnitude to the estimates from Table III.

We can also rule out the following alternative explanation for these results. For example, 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 states, rather than the presence of Japanese population caused by the internment camps. For this reason, we also include a variable that captures the growth of immigration from 1930 to 1990, by comparing the immigration of Asian-Pacific Islander ethnicities other than Japanese (specifically, Korean, Chinese, Hindu and Filipino).[12] The last 4 columns of

[12] For an image copy of the full 1930 census instructions, see http://www.lib.ncsu.edu/guides/popcensus/images/1930enu.pdf

Table IV indicate that including this control variable has no impact on our results. We also show that our results remain significant even after clustering our standard errors by state.

C.1 Firms founded before World War II

As a last remaining concern, one might that 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 even more cleanly measure the impact of the exogenous population ethnicity on firm decisions, we examine only firms that were founded before the Japanese Internment Camps populations existed.[13] 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 V obtain. Namely, the first stage regressions still have large and significant coefficients on the impact of Japanese Internment Camps on Japanese population today. For instance, the analogous coefficient from Column 2 of Table V Panel A is 0.0016 (t=14.25) is nearly identical to the 0.0017 from full sample. The second stage is where the sample size drop is more severe (as these are at the firm level). Even taking this into account, all of the magnitudes are similar with 3 of 4 of the coefficients even

[13] 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).

statistically significant. For instance, the analogous coefficient to Table V Panel B, Column 4, now solely run on those firms founded before 1946, is 31.553 (t=1.78), implying a 35% increase in exports to Japan for these firms following a one standard deviation increase in instrumented Japanese ethnic population (using Internment Camps established after the firms founding dates in those locations).

All of the evidence in this section helps provide a causal link to the results from Tables III and IV regarding the impact of surrounding ethnic population on firms' international trade decisions, and the influence they exert on these decisions.

IV. Strategic Traders and the Returns to Information Networks

In this section we build on the results above, and ask to what extent do 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 one might expect firms to tilt their trading focus as a result of superior private information about certain countries.

We try to disentangle these two possibilities by examining the future outcomes of firms that exploit their firm-country linkages in their trading decisions. We term those 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 potential information linkages. Because some firms will trade with only 1 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 Appendix 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,[14] 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. 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.

[14] 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. Finally, 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 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.

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 the future real outcomes and future stock returns of these strategic traders.

A. Future Real Outcomes of Strategic Traders

We first investigate whether strategic traders on average achieve superior real outcomes in the future, relative to their non-strategic counterparts. To do so, we run panel regressions of future sales and future profitability on lagged strategic trading activity. 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). We also 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 importers 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. Collectively, the results in Table VI suggest that strategic traders do receive real, tangible benefits from their firm-country networks in their import and export decisions, as strategic traders achieve higher sales (for both imports and exports) and higher profitability (for exports) relative to non-strategic traders.

B. Future Stock Returns of Strategic Traders

Next we examine the future stock returns of strategic traders versus non-strategic traders. The goal of these tests is to determine if the market properly prices the real outcome benefits that strategic traders receive from their import and export decisions. We begin with exports, and construct buy/sell signals for all export decisions as in the real outcome tests from Table VI; however, since returns are available monthly (unlike accounting variables), we now 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.

Table VII shows the results. 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.

Panel A of Table V indicates that a portfolio strategy that buys strategic exporters and shorts non-strategic exporters as described above earns large abnormal returns. The value-weight excess returns on this long-short portfolio equals 50 basis points per month (t=2.15); the corresponding value-weight four-factor alpha is 57 basis points per month (t=2.78). The long-short DGTW-

adjusted returns are 39 basis points per month (t=2.23).[15] These estimates translate to annual abnormal returns of roughly 5-7% per year. Most of the return spread comes from the long side of the portfolio; for example, the long portfolio return earns a 4-factor alpha of 53 basis points (t=2.82), while the short portfolio alpha is small and insignificant.[16] Panel B reveals similar, but statistically weaker, results for importers. For example, the value-weight excess returns on the imports long-short portfolio equals 45 basis points per month (t=1.75); the corresponding value-weight four-factor alpha is 38 basis points per month (t=1.45), and the long-short DGTW-adjusted returns are 45 basis points per month (t=1.92).

Collectively, the calendar-time portfolio results in Table VII indicate that strategic traders (particularly strategic exporters) earn substantial abnormal returns relative to their non-strategic counterparts. This result suggests that these firms are not overweighting certain countries in their import and export decisions due to a form of familiarity bias, but rather as a result of superior private information about certain countries. Further, the market does not seem to recognize the advantage of these types of strategic export/import decisions by firms, as the mimicking portfolios in Table VII produce economically meaningful abnormal returns.

C. Connected Board Members and Future Returns

[15] As we weaken the strength of the ethnic connection, for example by using a Top 5/Top5 cutoff or a Top 10/Top 10 cutoff (rather than a Top 3/Top 3 cutoff as described in Section IV.A) in order to define our strategic importers, the results are weaker, as we would expect. For example, the DGTW-adjusted returns on the long-short portfolio are 37 basis points per month (t=1.88) using a Top 5/Top 5 cutoff, and 29 basis points per month (t=1.64) using a Top 10/Top 10 cutoff.

[16] As described in Section IV.A, the short portfolio here includes the set of non-strategic exporters, i.e., firms that are located in regions without a strong ethnic link to a particular country, and yet choose to export to that country anyway. We have also run tests where the short portfolio includes the subset of non-strategic exporters who have a strong ethnic tie to at least one particular country, and yet choose to export to a *different* country. These long-short portfolio returns are even larger in magnitude, and the short portfolio returns are more negative, but the long-short portfolios contain fewer stocks, and hence these returns are noisier and statistically insignificant. For example, the long-short CAPM, 3-factor and 4-factor alphas from Panel A are 78 basis points (t-1.08), 96 basis points (t=1.39) and 58 basis points (t=0.86) for this finer specification.

From Table III, connected board members had a large and significant relationship with trade decisions by firms. In this section, similar to Section B, we test whether the market realizes the potentially positive impact to firm value of import and export decisions made by firms who have the strategic link to their trading partners of a connected board member. The measure we use for this is Pct of Board Strategically Connected, which is simply the percentage of the board that is from countries to which the firm is actively engaged in importing or exporting. In Table VIII, we run Fama-MacBeth cross-sectional predictive regressions of future returns with this variable, controlling for other known return determinants.[17] If these connected board members are helpful in making strategically valuable decisions, and the market does not fully understand this (much like the strategic trading in Section B more generally), then we expect a positive coefficient on Pct of Board Strategically Connected. This is precisely what we see in all four columns of Table VIII. Examining both the full sample of firms, and solely the subsample of firms that have at least 1 connected board member (to test whether the percentage of board members, and not simply the existence of any connected board member relative to zero), we see a large and significant coefficient on Pct of Board Strategically Connected. To give an idea of magnitude, the coefficient in Column 4 of 0.077 (t=2.13), implies that a firm with a strategically connected board member to the country it is trading with has future returns of 60 basis points per month higher than a firm trading with same country but no connected board member.

D. Analyst Attention to Information in Imports and Exports

In Sections A-C above we showed that strategic importing and exporting had an impact on real firm outcomes, but that this impact was not fully understood by investors in setting market price. In this section we test whether other, potentially more sophisticated financial agents, namely sell-side securities

[17] Given the smaller number of firms that have board members from foreign countries in general, the portfolio approach of Table VII yielded too thin of portfolios, and so we utilize the Fama-MacBeth regression framework to test the thesis in Table VIII.

analysts, are better able to assess the large value of this strategic information link advantage. A large part of an analyst's job is to research, produce, and disclose reports forecasting aspects of companies' future prospects, and to translate their forecasts into earnings forecasts. Thus, we test whether analysts understand the value-enhancing nature of these strategic importing and exporting decisions by analyzing analysts' ability to correctly impound this information into their earnings forecasts of firms who exploit these strategic networks versus firms that do not.

We report two sets of tests of this idea in Table IX. The first test simply examines whether analysts are more inaccurate in their forecasts of strategic trading firms versus non-strategic trading firms. We do this using the variable Earnings Forecast Error, which is defined as 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 (winsorized at the 0.01 level). We regress Earnings Forecast Error for each firm on whether or not the firm is a strategic importer (exporter), along with a number of other controls (from Table VIII), and fixed effects for month and industry. Standard errors are clustered at the monthly level. Columns 3 and 4 (and 7 and 8) tell a consistent story: analysts do not seem to be correctly taking into account the information in strategic importing or exporting, and so are significantly more inaccurate on these firms. To give an idea of the magnitude, the coefficient in Column 4 of 2.874 (t=2.53) suggests that analysts are 15% less accurate on strategic exporting firms than on other firms. In contrast, we see no such inaccuracy on non-strategic importers or exporters, as analysts appear to be able to roughly correctly forecast their earnings, on average.

Given that firms' strategic trading yields real value in terms of future sales growth and profitability, and that both price setters and analysts seem to not fully understand or impound this information into prices, earnings announcements might be the exact times that the information embedded in these real quantities is impounded into prices (as it is revealed to the markets in these

quarterly statements). We test this directly by examining whether the earnings surprise cumulative abnormal returns (CARs) of strategic traders are different than those of non-strategic traders. Earnings Surprise CAR is defined as the cumulative abnormal return (t-1,t+1) around the earnings date (t). The main independent variable of interest (strategic importer (exporter)) remains the same, as do all controls and specifications, with the addition of one new control variable, (Act EPS – Est), controlling for the magnitude and direction of the actual earnings surprise itself. These regressions are in Columns 1 and 2 (and 5 and 6) of Table IX. All four columns show that strategic importers (exporters) have significantly larger Earnings Surprise CARs, consistent with these being times that the advantages of strategic trading are revealed to the market and impounded into prices. Again, we see no such increased Earnings Surprise CARs for the non-strategic firms.

Taken together, the evidence in Section IV indicates that it is precisely the firms that exploit their ethnic information 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. Further, 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). Lastly, 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.

V. Other Transactions and Connections

In this section, we investigate whether firms that have connections to foreign countries through their connected resident populations (or through board members) report more business transactions in those countries. Specifically, we use geographical segment information filed by corporations to measure amount of sales originated from a certain country or region, and estimate the following

specification:

Segment Sale Ratio $_{ict}$ = b1+ b2* CP_{ct} + b3* Connected Board Member + Segment Sale + Number of Firm-Country + Number of Countries+ Year Fixed Effect+ Country Fixed Effect.

The variable Segment Sale Ratio equals the sales of a foreign segment scaled by total sales reported in all foreign segments in that year. Data on sales in geographical segments are drawn from the Compustat geographical segment files. In these files, a geographical segment may refer to a specific country (e.g. China) or a region (Asia). Because the segments reported are 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. The variable Number of Firm-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 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. Sales refers to sales of that segment in that particular year. If the reported segment is a country, Connected Population refers to the number of residents in 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.[18]

Table X shows that both Connected Population and Connected Board Member are statistically significant predictors of the Segment

[18] Using the sum of Connected Population, or the maximum of Connected Board Member across the region, give similar results.

Sale Ratio. In terms of the magnitude, a one standard deviation increase in connected population (connected board member) increases segment sales by 1.8% (0.7%) in that country. Finally, in an alternative specification we create an expanded database by mapping region information (e.g. Europe) to countries contained in the region. Using this database we prorate the region sales equally to each county and use the country based Connected Population and Connected Board Member variables, to estimate our baseline specification; using this approach we obtain very similar results to those presented here.

VI. Conclusion

In this paper, we exploit variation in ethnic population breakdowns across the U.S. to examine how local residents' ties to their home-countries can influence firms' international trade decisions. We exploit 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.

We find that firms that exploit these local networks in their international trade decisions (strategic traders) experience significant increases in future sales growth and profitability. We show that although we can predict which trade links, on average, are valuable for firms using simple measures of connected population that are publicly available, the market seems to ignore this information. In particular, strategic importers and exporters outperform other importers and exporters by 5%-7% per year in risk-adjusted returns. The increased value of strategic traders is also missed by analysts, who are significantly less accurate in their earnings forecasts on these firms, with these firms having significantly more positive earnings surprises.

We then provide additional evidence on the mechanism by showing that at times when the information network represents a more valuable link, specifically at times of tariff cuts to the connected country, our effects are even larger. We show that one particular channel of the information network is through board members: a connected local population predicts more board members from that same country, and a significantly higher value for those firms that exploit connected board members in their trade decisions.

While we focus on immigration and how demographic factors affect the import and export behavior of firms, we believe that our approach can be readily adapted to study other local advantage factors. Our research also provides new evidence on the economic impact of immigration and ethnic diversity in the United States. Immigrants' conduit roles in economic transactions almost surely stretch far beyond those we document in this paper.

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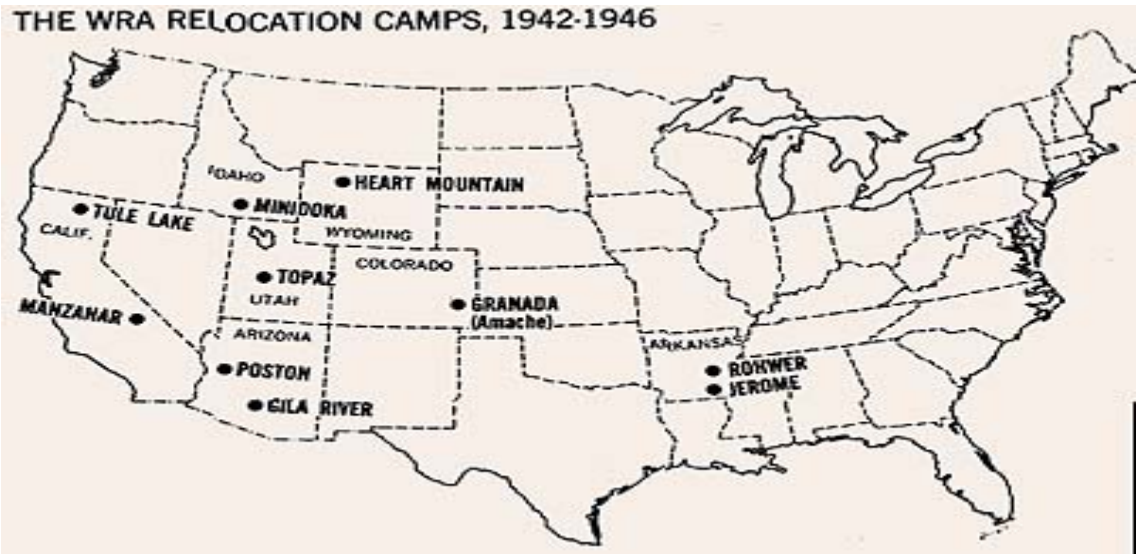
Figure 1: Japanese Internment Camps of World War II

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 of 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 stock holders 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: Summary Statistics (continued)

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

Panel A (first four columns) 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 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 the same as the export destination. The dependent variable in the last column is a dummy variable, which takes a value of one if the firm has exported to a given country in a given year. Panel B (first four columns) 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})). The dependent variable in the last column is a dummy variable, which takes a value of one if the firm has imported from a given country in a given year. 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)
Connected Population	0.039***	0.039***	0.122***	0.043***	0.0457***
	(5.14)	(4.71)	(4.35)	(5.42)	(30.34)
Connected Board Member				0.014***	
				(3.42)	
Firm Fixed Effects	Yes	No	No	No	No
Year Fixed Effects	Yes	No	No	No	No
Firm x Year Fixed Effects	No	Yes	No	Yes	No
Country Fixed Effects	Yes	Yes	No	Yes	No
State x Partner Country Fixed Effects	No	No	Yes	No	Yes
Adj. R2	0.46	0.59	0.10	0.59	0.002
Number of Observations	80,529	80,529	80,529	80,529	2,966,539

Table III: The Impact of Ethnic Connections on Firm-Level Trade (continued)

Panel B: Imports

	Import Ratio	Import Ratio	Import Ratio	Import Ratio	Import Ratio (extensive margin)
Connected Population	0.022**	0.032***	0.154***	0.035***	0.0578***
	(2.00)	(2.70)	(5.97)	(3.04)	(25.56)
Connected Board Member				0.015***	
				(4.94)	
Firm Fixed Effects	Yes	No	No	No	No
Year Fixed Effects	Yes	No	No	No	No
Firm x Year Fixed Effects	No	Yes	No	Yes	No
Country Fixed Effects	Yes	Yes	No	Yes	No
State x Partner Country Fixed Effects	No	No	Yes	No	Yes
Adj. R2	0.39	0.49	0.10	0.49	0.003
Number of Observations	84,296	84,296	84,296	84,296	2,634,115

Table IV: Tariff 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 in that state (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 Import Ratio	Product Export Ratio
Connected Population	0.0046**	0.0046**	0.0074***	0.0020	0.0029***	0.0018***
	(2.43)	(2.46)	(3.93)	(1.06)	(2.29)	(8.39)
Tariff		-0.00003	0.0001	0.0004		
		(0.18)	(0.73)	(1.61)		
Connected Population x Tariff			-0.0022***	-0.0014***		
			(4.49)	(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	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Product Fixed Effects	No	No	No	Yes	No	No
Adj. R2	0.40	0.40	0.40	0.48	0.41	0.47
Number of Observations	34,062	34,062	34,062	34,062	563,552	422,237

Table V: Japanese Internment Analysis

This table presents coefficient estimates of instrumental variable estimation for exports (imports) in columns 1,2,5 and 6 (3,4,7, and 8). 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 state (CP_{ct}). The instrument, Japanese Internment is a binary variable that takes a value of 1 if the headquarter of the firm is located in a state that housed one of the internment camps. Immigration growth refers to the ratio of Asian-Pacific Islander ethnicities except Japanese (e.g. Koran, Chinese, Hindu and Filipino) in 1930 to that of 1990. T-stats, clustered by year in the first four columns (by state in the last four columns), are reported below coefficient estimates. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: First Stage

	Connected Population	Connected Population	Connected Population	Connected Population	Connected Population	Connected Population	Connected Population	Connected Population
Japanese Internment	0.0080***	0.0017***	0.010***	0.0019***	0.0078***	0.0016***	0.0098***	0.0019**
	(35.29)	(22.53)	(31.07)	(27.01)	(3.41)	(2.01)	(4.65)	(2.43)
Immigration Growth					-0.0006	-0.0001	-0.0005*	-0.0002
					(1.70)	(1.39)	(1.78)	(1.51)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CA, OR, WA, HI Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes

Panel B: Second Stage

	Export Ratio	Export Ratio	Import Ratio	Import Ratio	Export Ratio	Export Ratio	Import Ratio	Import Ratio
Instrumented Connected Population	11.865***	60.612***	8.668***	45.099**	11.864***	65.1262*	7.9918***	42.585**
	(4.04)	(4.89)	(5.02)	(2.28)	(2.91)	(1.74)	(3.62)	(2.41)
Immigration Growth					0.0015	0.0104	-0.0091	-0.0071
					(0.20)	(1.07)	(1.15)	(0.91)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CA, OR, WA, HI Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes
Cragg-Donald F-stat	548.74	129.75	3407.6	203.7	2486.35	114.34	6378.01	178.21
Number of Obs.	3,167	3,167	4,805	4,805	3,167	3,167	4,805	4,805
Standard Errors Clustered by	Year	Year	Year	Year	State	State	State	State

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 Appendix 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: 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 Appendix 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 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 VII: Portfolio Returns to Strategic Trading Activity (continued)

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 VIII: 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 IX: 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 X: Segment Reporting and Connections

This table presents coefficient estimates of fixed effects regressions of Segment sale ratio on Connected Population (CP) and control variables: Segment Sale Ratio $_{ict}$ = b1+ b2* CP_{ct} + b3* Connected Board Member + Year Fixed Effect+ Country Fixed Effect.

Segment Sale Ratio is sales of a foreign segment scaled by total sales reported in all foreign segments in that year. Number of Firm-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 Sale	0.0001***	0.0002***
	(4.77)	(4.68)
Number of Firm-Country	0.0001	0.00003
	(0.54)	(0.59)
Number of Countries	-0.0054***	-0.0054***
	(18.20)	(18.38)
Intercept	Yes	Yes
Year Fixed Effects	Yes	Yes
Country/Region Fixed Effects	Yes	Yes
Adj. R2	0.330	0.336
Number of Observations	39,140	39,140

Channels of Influence:
Internet Appendix

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 Mapping

	Country Name	Population in US
1	Argentina	Argentinian
2	Australia	White
3	Austria	White
4	Barbados	Mexican
5	Belgium	White
6	Belize	Mexican
7	Brazil	Mexican
8	Bulgaria	White
9	Cambodia	Filipino
10	Canada	White
11	Chile	Chilean
12	China	Chinese
13	Colombia	Colombian
14	Costa Rica	Costa Rican
15	Cuba	Cuban
16	Czechoslovakia	White
17	Denmark	White
18	Dominican Rep.	Dominican
19	Ecuador	Ecuadorian
20	El Salvador	Salvadorian
21	Finland	White
22	France	White
23	Germany	White
24	Greece	White
25	Guatemala	Guatemalan
26	Haiti	Mexican
27	Honduras	Honduran
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	Mexican
43	Netherlands	White
44	New Zealand	White
45	Nicaragua	Nicaraguan
46	Norway	White
47	Panama	Panamanian
48	Paraguay	Paraguayan
49	Peru	Peruvian
50	Philippines	Filipino
51	Poland	White
52	Portugal	White
53	Puerto Rico	Puerto Rican
54	Romania	White
55	Russia	White
56	Singapore	Chinese
57	Spain	Mexican
58	Sweden	White
59	Switzerland	White
60	Taiwan, China	Chinese
61	Thailand	Filipinos
62	Turkey	White
63	Ukraine	White
64	United Kingdom	White
65	Uruguay	Uruguayan
66	Venezuela	Venezuelan
67	Vietnam	Vietnamese
68	Yugoslavia(FR)	White
69	South Africa	White

Table A3: Country-Census Ethnicity Mapping

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

Table A4: State-level Connected Population

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 + Firm Fixed Effect + Year Fixed Effect+ Ethnicity Fixed Effect + FirmxYear Fixed Effect. 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. Panel B of this table presents coefficient estimates of the following specification: IR_{ict} = b1+ b2* CP_{ct} + Firm Fixed Effect + Year Fixed Effect+ Ethnicity Fixed Effect + FirmxYear Fixed Effect, 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
FirmxYear Fixed Effects	No	Yes	No	Yes
Ethnicity Fixed Effects	Yes	Yes	Yes	Yes
StatexPartnerCountry 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: State-Level Connected Population (continued)

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
FirmxYear 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