Ambassadors as CEOs: Evidence from Trade Data

Faisal Z. Ahmed* Alexander Slaski

August 2, 2022

Abstract

National governments routinely deploy their diplomatic corps to advance their trade policies. While economists have studied this in multilateral negotiations or with national leader visits, scholarship examining the role of more regularized bilateral diplomacy has received less attention. In this paper, we study how the heads of embassies (i.e,. ambassadors) can affect bilateral trade. Focusing on one of the largest diplomatic corps, we compile original monthly level data on US ambassadorial postings over a 50 year period and use the timing of US presidential inaugurations as an instrumental variable to show that periods of ambassadorial vacancies reduce US monthly exports, but do not affect US imports. These findings are driven by the vacancies of career diplomats and are magnified in poorer countries and those with an inferior quality of governance. Our findings suggest that ambassadors can affect export performance, particularly those with more experience and who are posted in weak institutional environments.

JEL codes: F13, F14, F51, P16
Keywords: International trade, trade policy, political economy, developing countries, diplomats

*Faisal Ahmed (corresponding author) is an assistant professor, Department of Politics, Princeton University, E-mail: fzahmed@princeton.edu. Alexander Slaski is a visiting professor at Georgetown University, E-mail: alexnader.slaski@georgetown.edu. We would like to thank Lawrence Broz, Meredith Crowley, Andreas Fuchs, William Lincoln, Edmund Malesky, Layna Mosley, Volker Nitsch, and Peter A.G. van Bergeijk and participants at IPES for helpful suggestions.

1 Introduction

A burgeoning literature in economics has probed the ways in which governments deploy their diplomatic corps to advance their nation's trade interests (e.g., Rose 2007, Head and Ries 2010, van Bergeijk 2014). While economists have studied this in multilateral settings (e.g., Ossa 2011, Bagwell et al. 2020) or with high-level national leader visits (e.g., Nitsch 2007, Fuchs and Klann 2013), scholarship examining the role of more *regularized* bilateral diplomatic engagement - in which ambassadors play a prominent role in day-to-day operations at embassies (Hollbaugh 2015) - has received less attention. From a policy perspective, this is surprising as foreign ministries in the United States, United Kingdom, Germany, and Japan claim that one of the primary goals of ambassadors is to promote bilateral trade (Malone 2013).[1] Governments in emerging markets and developing countries express similar ambitions. The evidence of such support comes not only from official statements, but also from the billions of dollars that countries spend on their professional ambassadorial corps (Rose 2007, van Bergeijk 2014).[2]

In this paper, we evaluate the effect of ambassadors on bilateral trade and study several plausible channels. As the head ("CEO") of a country's embassy abroad, we conceptualize ambassadors as potentially facilitating bilateral trade by helping monitor and enforce cooperative trade outcomes, mitigating various types of market failures, and linking trade to other foreign policy interests. Accordingly, we hypothesize that ambassadorial vacancies diminish diplomatic influence and lead to a reduction in bilateral trade during the vacancy period. We evaluate this hypothesis by compiling and matching original monthly level data on US ambassadorial appointments and vacancies to monthly volumes of US bilateral trade to around 170 countries over a half century (from 1963 to 2014).

Our empirical focus on US ambassadors is advantageous in several ways. First, the US has one of the largest diplomatic corps.[3] Second, the US Department of State publicly lists the names and country assignments of US ambassadors; information that extends back to

[1] For example, in his first major speech as President Biden's Secretary of State, Antony Blinken (2021) emphasized the importance of trade promotion, calling it the "enlightened self-interest" of the United States to pursue core goals of "new markets for our products, new allies to deter aggression, and new partners to help meet global challenges." Quoted from: *A Foreign Policy for the American People*, March 3 2021. Available: https://www.state.gov/a-foreign-policy-for-the-american-people/.

[2] See Rose (2007) for quotes from various developed country ministries. The US Commercial Service also publishes "success stories", case studies of successful export promotion. See https://www.export.gov/successes.

[3] At the *country level*, data from the Global Diplomacy Index (compiled by the Lowery Institute) reveals that in the most recent year available (2019), China had one more foreign embassy than the United States (169 to 168). Before 2019, the United States consistently led the world in embassy presence abroad.

the country's founding in 1776. We are not aware of any other country that makes this information available and verifiable with other sources (e.g., Association of Diplomatic Studies and Training). Third, the State Department's listing contains detailed information on the start and end dates (day, month, and year) of each ambassadorial spell allowing us to determine periods of ambassadorial vacancies. This therefore allows us to construct a panel data set, which empowers us to estimate models with country and year fixed effects. Fourth, the recruitment process of US ambassadors through either the State Department ("career diplomats") or explicit political connections to the US President ("political appointees") allows us to infer how the (possible) quality of ambassadors affects trade. Fifth, the heightened prospect of ambassadorial churning when a new President comes to office allows us to construct a powerful instrumental variable for the probability of observing an ambassadorial vacancy.

As preliminary check on the plausibility that ambassadorial vacancies may be associated with a reduction in US bilateral trade, we plot the raw data. In Figure 1 we plot the average volume of US bilateral trade in the 10 months before and after an ambassadorial vacancy, with $t = 0$ representing the average monthly value of trade during a vacancy spell (the average spell lasts about 5 months).[4] In the months around a vacancy, average US trade fluctuates around \$1.05 billion (within a +/- \$75 million band). However, during a vacancy, US trade plummets significantly to around \$820 million per month on average. This nearly 20 percent contraction in trade is statistically significant, with a p-value < 0.01.

< FIGURE 1 AROUND HERE >

While suggestive, the pattern in Figure 1 could be driven by unobserved heterogeneity and omitted variables. We therefore test the "vacancy effect" with more stringent statistical analyses. Our baseline specifications follow a reduced form gravity model of international trade that controls for a battery of time-varying determinants of bilateral trade (e.g., membership in trade agreements, market size, etc.) as well as country and year fixed effects. Our reduced form estimates suggest that each month of an ambassadorial vacancy contributes to around a 2.5 percent reduction in total trade, but this contraction is driven almost entirely by a decline in US exports (to partner countries) with no impact on US imports.[5]

[4]We observe similar patterns around vacancy with the average monthly volume of US exports and US imports.

[5]This finding is similar to Bagir (2020). That study uses panel data on Turkey's expansion of its foreign embassy network to demonstrate a robust positive effect on Turkish exports but no significant effect on Turkish imports (from the partner country).

Our baseline estimates suggest that, on average, each month of an ambassadorial vacancy is associated with about a 31 million dollar decline in US exports; however, as we show, there is significant variation by the type of diplomat (professional or career) and across countries and geographic regions.[6] As we document, the vacancy effect is associated primarily with the departure of career diplomats and is larger in countries with lower per capita income.[7] For example, relative to periods with a sitting ambassador, each month of an ambassadorial vacancy contracts US exports to Burundi and Nepal by 10.5 and 5.1 percent respectively. In contrast, in richer countries (e.g., France, Germany) the relative drop in US exports is much smaller.

The presence of a vacancy effect is robust to the inclusion of a battery of controls (e.g., individual characteristics of ambassadors) and additional unobserved factors (e.g., seasonal trends, country x year fixed effects); to the exclusion of potential outliers based on geography (e.g., vacancies are more prevalent in Africa) and trade volumes (e.g., dropping the top and bottom decile of US exports); and across alternate specifications. The latter includes models that control for lagged values of trade, trends in monthly trade before and after a vacancy, and estimation with Poisson pseudo maximum likelihood. As an extension to our main analysis, in Appendix D, we corroborate our findings with fine grained monthly trade data at the 3-digit industry classification.

We then explore several plausible channels, finding that vacancies of career ambassadors (i.e., those that rise through the civil service ranks at the US State Department), rather than political appointees, account for the decline in US exports. Moreover, vacancies contribute to a larger reduction in US exports to poorer countries, where the prevailing quality of governance tends to be weak and potentially conducive to "cheating" in international trade.[8] We probe this conjecture further. First, we leverage measures of bureaucratic quality and control of corruption that varies at the country-month level, to show the vacancy effect to *weaken* in trading partners with stronger indicators of good governance. Second, we exploit the panel structure of our data to show that exports fall in the first few months of vacancy, presumably where detecting cheating would be harder to observe by the United States government. Finally, we provide evidence to discount explanations related to coercive diplomacy (e.g., the vacancy effect may be heightened in countries facing sanctions) and

[6]For example, our reduced form OLS estimates suggest that each month of a vacancy (to Canada) reduces US exports to Canada by $1.4 billion.

[7]This latter finding is similar to Yakop and van Berjeijk (2009). That paper finds that *embassies* in developing countries generate larger effects on bilateral trade flows.

[8]Figures A1 and A2 show that poorer countries tend to exhibit lower bureaucratic quality and control of corruption.

political factors in the United States (e.g., how partisan shifts in the President may affect US foreign economic policies) and partner country (e.g., a recent coup may affect both trade flows and the incidence of an ambassadorial vacancy). Our investigation of channels suggests the efficacy of diplomacy is augmented by the expertise (quality) of the bureaucrat and the incentives of the partner country to cheat on trade relationships.

A potential concern with studying the effect of ambassadorial vacancies on bilateral trade is endogenous selection. For example, it is plausible that declining trade performance may prompt a change in ambassador, or possibly, omitted variables might affect both the incidence of a vacancy and changes in trade. We address this concern by leveraging plausibly exogenous variation in the *timing* of a new president's inauguration as an instrumental variable for an ambassadorial vacancy. The election of a new US president, which occurs every 4 or 8 years, tends to usher in a new diplomatic corps, with significant ambassadorial turnover in the first few months of a new presidency (see Figure 3b).[9] We interpret this period of bureaucratic churning as a common shock that is plausibly exogenous to any particular diplomatic relationship and/or patterns (trends) in US bilateral trade. Cognizant of the fact that an inauguration may also alter US foreign policy more broadly (and possibly, subsequent trade flows), our 2SLS specifications flexibly control for factors that may potentially violate the exclusion restriction, such as the possible association between political partisanship and US foreign economic policy.[10] Our 2SLS estimates corroborate our OLS results that US exports decline during a US ambassadorial vacancy.

Our instrumental variable is also advantageous in allowing us to untangle several channels. In sections 5.2 and 5.3, we show that career diplomats are more likely to be stationed in poorer countries, non-allies, and non-members of the GATT/WTO.[11] Since these are viable channels that mediate the vacancy effect (see section 5.2), we employ a Bartik-style instrumental variables strategy that permits us to identify a plausibly exogenous source of variation for each channel (see Goldsmith-Pinkham et al. 2020). In isolating the causal effect of each channel, our 2SLS estimates point to the important role of a partner country's per capita income: the vacancy effect is magnified in poorer countries.

Our empirical findings support government claims about the ability of diplomats to pro-

[9]We are careful not to directly compare our reduced form OLS estimates to the 2SLS estimates, as the instrument identifies the effect of an ambassadorial vacancy on trade in inauguration years relative to non-inauguration years.

[10]For example, we interact our instrument with the partisanship of the incoming President and each Congressional chamber.

[11]These factors are also correlated. For example, poorer countries are less likely to be allied with the United States.

mote trade. For example, during a debate in the Senate Foreign Relations Committee on ambassadorial appointments in 2006, then-Senator Joseph Biden commented, "[w]e know from experience that leaving an embassy without an ambassador for an extended period of time is very bad for our interests because it reduces the amount of access to high levels of government for the US embassy" (C-SPAN 2006, from minute 22:00). More recently, a US State Department "factsheet" directly tied ambassador vacancies to commercial costs for US firms: "Without ambassadors in place, America's economic interests are compromised. US businesses have sought embassy assistance in pursuing $119 billion worth of contracts in countries currently without a US ambassador. Our findings suggest this view is not unfounded: last year, top-level diplomatic advocacy was responsible for more than $5.5 billion worth of contracts awarded to US companies by foreign governments" (Kerry 2014).

In providing evidence that ambassadors can affect trade, our paper speaks to several literatures. We contribute to scholarship on commercial policy, which to date has tended to focus on trade *policies*, especially in a multilateral setting (Ossa 2011, Bown and Crowley 2016, Bagwell et al. 2020). In contrast, this paper probes the impact of specific agents (bureaucrats) on international trade. Our study builds on recent empirical analyses on whether diplomacy affects trade (see Moons and van Berjeijk 2017 for a meta-analysis). Initial work, based primarily on cross-sectional analysis, found that embassies may help facilitate trade, particularly when they are in key locations, are larger, or can access more resources (Rose 2007). More recently, Gertz (2018) and Malis (2021) use panel data to estimate the effect of US ambassadorial vacancies on the initiation of investment arbitration and trade. Our paper diverges from these papers in two important ways. First, by leveraging monthly data, our analysis more precisely ties the timing of ambassadorial vacancies to changes in trade. Second, unlike prior studies, we carefully evaluate several channels and find the ambassadorial trade effect to be largely driven by the type of diplomat (career versus political appointee) and the income of the partner country (which is plausibly correlated with the quality of governance).

More broadly, our paper shows how foreign policy can affect bilateral trade. Several works highlight how political tensions can affect trade (e.g., Dixon and Moon 1993, Gowa 1994, Martin et al. 2008). Relatedly, differences in the nature of foreign influence may also shape trade patterns. In some instances, this influence can be through coercive means, such as covert interventions (Berger et al. 2013). In other instances, less coercive state visits and trade missions can affect trade patterns (e.g., Nitsch 2007, Head and Ries 2010, Fuchs and Klann 2013). Our paper fits more closely in this latter category, as our results suggest that

reductions in regularized bilateral diplomatic influence – i.e., via ambassadorial appointments – can affect trade performance.

Finally, our focus on ambassadors is related to scholarship on how bureaucrats can affect economic outcomes (e.g., Ayal and Karras 1996, Prendergast 2007), particularly from reduced effort (or absenteeism) by civil servants (e.g., Khemani 2007, Bjorkman and Svensson 2009). Our empirical analysis situates this in a bilateral trade setting, where the efficacy of diplomacy is affected by its *absence*.

2 How ambassadors can affect international trade

Our conceptual framework begins by articulating how diplomats can potentially facilitate trade. We then articulate how ambassadors effectively serve as CEOs in a country's diplomatic efforts abroad; and how ambassadorial vacancies reduce diplomatic influence and hence trade.

2.1 Diplomacy and trade

Trade cooperation. Bilateral trade policy is often modeled as a cooperative game between countries, each seeking to maximize national income: countries want to restrict access to their markets (by limiting imports) in order to reduce competition while gaining access to foreign markets (by increasing exports). If each country follows its dominant strategy to restrict imports from the other, both countries experience lower income (utility) than if they engaged in cooperative trade. Examples of "cheating" could include delaying shipments at ports of destination and introducing (new) bureaucratic regulations when diplomatic monitoring wanes (e.g., during a vacancy). This behavior is likely to be more prevalent in weak institutional settings, particularly in developing countries (Olken and Pande 2012). With these kinds of examples in mind, resolving this prisoner's dilemma – where each country does not restrict the other's imports – can hinge on effective information provision and enforcement mechanisms. In their daily activities, ambassadors (and their associated staffs) have the capacity to address potential cheating by economic actors in the host country (e.g., firms, custom officers, bureaucracies). This suggests that a reduction in diplomatic monitoring - possibly due to an ambassadorial vacancy - can elevate the likelihood of cheating from host country actors. In the case of foreign investment, Gertz (2018) provides evidence that American firms operating abroad are more likely to initiate investor-state arbitration

disputes during temporary vacancies in US ambassadorships.

Market failure. Diplomats may be particularly effective in low-information environments, where their diplomatic skills and local presence are of greatest use. In these settings, diplomats may help identify and lessen the severity of various types of market failures (e.g., political risk, information asymmetries) and find untapped economic opportunities caused by political risk and information asymmetries. For example, diplomats can help reduce risk by sharing information and providing information to firms in both the home and host country (Selmier and Oh 2013). Diplomats may also serve as informal guarantors of deals, providing a form of risk insurance to investments. In many instances, diplomats – particularly those who are deeply embedded in the institutions of their host country – "know which levers to pull." They can provide warnings of political changes and any information about any threats of political changes regarding the trade relationship (Li et al. 2018). In each instance, diplomats possess the same set of skills: information provision, brokering ties between firms in the host and home country, and providing assurances that trading arrangements will be enforced.

Issue-linkage (spillovers). Diplomats may also foster bilateral trade via issue-linkage. Scholars in international relations note that trade is often used as a bargaining chip in broader diplomatic negotiations, particularly in those related to national security and geopolitical interests (Davis 2008). If diplomacy is effective in highly contentious bilateral relationships, this suggests that diplomats may be more important in facilitating trade with non-allies or countries with less foreign policy alignment. In these relationships, the diplomat's negotiation skills and role as guarantor of agreements may be more useful.

2.2 Channels of diplomatic efficacy

In practice, the ability of diplomats to facilitate trade cooperation, address market failures, and engage in issue-linkage may be magnified by factors specific to the bilateral relationship. Below, we identify three channels that may be particularly salient: the expertise of diplomats, characteristics of the partner (host) country, and broader foreign policy alignment.

The efficacy of diplomacy may be magnified by the expertise (quality) of the bureaucrat. For example, diplomats who have prior experience in the foreign service, education in conflict resolution, negotiations, and policy trade may exhibit greater expertise (Gertz 2018). In contrast, diplomats who are politically appointed (e.g., because they contributed to the government's electoral campaign, enjoy a personal relationship with top government officials,

etc.) may exhibit less expertise and thus be less effective (Haglund 2015).

The resolve of the partner country to comply with (or cheat on) trade arrangements may also affect the efficacy of diplomacy. To the extent that diplomats help monitor a cooperative trade outcome, a reduction in diplomatic influence from one country (e.g., via a vacancy) can create conditions for agents in the other country to cheat on trade transactions (e.g., delays at ports of entry, imposition of new regulations). While this resolve and capacity to cheat is hard to observe directly, it is likely to arise in weak institutional settings that tend to be associated with low economic development (Olken and Pande 2012). This suggests that diplomacy may be particularly important in fostering trade with less economically developed countries (van Bergeijk 2014).

The importance of diplomacy in managing bilateral trade, however, may be mediated by the prevalence of other factors. Two may be particularly important. The first channel emphasizes trade agreements that seek to formalize trade relationships, frequently by creating mechanisms to detect and punish cheating by each country (Keohane 1984). This suggests that membership in a preferential trade agreement (e.g., US-Jordan FTA), regional trade agreement (e.g., NAFTA) or global trade agreement (e.g., GATT/WTO) may minimize the importance of diplomacy. An additional channel may stem from geopolitical alignment, for example in national security interests and policy alignment. Countries that are military allies and/or exhibit similar voting patterns in multilateral institutions (e.g., the United Nations) may be more prone to cooperate and trade with each other (Gowa 1994, Dixon and Moon 1993). These two channels suggest the importance of diplomacy may be less important between countries that have shared geopolitical interests and membership in common institutions.

2.3 Ambassadors as CEOs

In practice, while commercial diplomacy is carried out by a large cadre of bureaucrats – including trade delegations (e.g., Nitsch 2007, Fuchs and Klann 2013), country-based embassies (e.g., Rose 2007, Ferguson and Forslid 2013), and export promotion agencies (Lederman et al. 2010, Head and Ries 2010) – ambassadors play a crucial role in implementing day-to-day diplomatic operations (Malone 2013, Hollbaugh 2015). According to the US State Department's 2010 *Quadrennial Diplomacy and Development Review*, ambassadors are the "CEOs" of bilateral diplomatic relationships. There are several reasons why ambassadors matter for effective commercial diplomacy.

First, in the United States, "the instructions every Ambassador receives before assuming

his or her responsibilities emphasize that support for US investors and business overseas is a core diplomatic and consular function and a top priority for all US economic agencies" (Nelson 2014, 10). Second, personal relations developed through repeated interactions are often crucial in advancing commercial interests, particularly in countries with weak institutions where face-to-face relationships underlie economic activity. Oral histories gathered by the Association of Diplomatic Studies and Training emphasize that, unlike lower-ranked bureaucrats, ambassadors enjoy the authority to call meetings and forge personal relationships with high-ranking host-country officials.[12] Third, during an ambassadorial vacancy there is likely to be greater overall uncertainty in the bilateral diplomatic relationship, with the possibility that host-country officials may cheat on trade contracts. As Gertz (2018, 98) observes: "to be sure, diplomacy does not stop when there is no ambassador – the bureaucrats based at the embassy continue their day-to-day work, led by temporary chief of mission. But without a leader to set strategic priorities and manage the overall bilateral relationship, diplomacy is hamstrung as the embassy staff await the arrival of a new ambassador."

2.4 Testable hypotheses

Our discussion above generates several testable hypotheses. First, an ambassadorial vacancy (from country A to B) may reduce bilateral trade between A and B. Second, to the extent that diplomats seek to promote their own country's commercial interests, the reduction in trade may be concentrated in a decline in A's exports to B. Third, the channel of diplomatic influence on bilateral trade may vary by the type of ambassador (e.g., career versus politically appointed), characteristics of the partner country B (e.g., prevalence of market failures, institutional quality) and/or the strength of foreign policy alignment, particularly on national security issues.

3 Empirical strategy

To gauge the impact of ambassadorial vacancies on international trade, we focus our analysis on diplomats and bilateral trade associated with the United States. We do so for two overarching reasons. First, in aggregate terms, the United States is one of the largest trading

[12]For instance, a former US ambassador to Ukraine described the importance of his personal relationship with then Ukrainian President Leonid Kuchma: "[We need to] have constant engagement, that is, I had to meet him constantly to keep progress on agreed goals going. What I have just described is evidence that an ambassador has great value, simply as a human presence, if he can keep the discussions going on the goals that both sides agree are important. There is no substitute for it" (Beer 2012, 71).

countries in the world, with a vast network of diplomatic relationships. This allows us to compile a detailed set of bilateral trade flows and, importantly, rich information on individual ambassadors and their appointments (e.g., their start and end dates, prior diplomatic experience, personal characteristics). Second, the selection process for US ambassadors allows for the appointment of ambassadors from outside the diplomatic corps, i.e., political appointees (Hollbaugh 2015, Arias and Smith 2018). Notably, as we document in section 4, differences in the selection criteria and country assignment for political and non-politically (career) appointed ambassadors allows us to study channels.

3.1 Ambassador data

A distinguishing feature of our empirical analysis is the use of detailed, monthly-level data to trace the relationship between US ambassadorial turnover and trade flows. We combine information from the US Department of State and Arias and Smith (2018) to create a monthly-level panel data set on US ambassadorial appointments – with their country assignment and exact end and start dates – coupled with their personal characteristics (e.g., age at entry, gender, prior diplomatic experience). Importantly, we collect information on two critical variables.

First, using the exact start and end dates of each ambassadorial term, we classify months in which a country did not have an ambassador assigned to it as a vacancy (equal to 1 in those months, and 0 otherwise).[13] Second, we carefully identify whether the exiting ambassador is a political appointee or a career diplomat. We construct a binary variable ($CAREER$) equal to 1 if the ambassador is a career diplomat and 0 otherwise. Using these two variables, we differentiate vacancies of politically appointed or career diplomats. Specifically, we associate a vacancy with the appointment status of the *exiting* ambassador. Thus, if a career diplomat leaves his/her post, then the subsequent period of vacancy (if at all) is deemed a "career diplomatic vacancy."[14] We merge our data on ambassadors with monthly US bilateral trade volumes (exports and imports) from the IMF's Direction of Trade (DOT) database and information on economic, geographic, and political characteristics of the partner country (described in the next sub-section).

In total, our data comprises nearly 3,000 ambassadorial appointments to around 170

[13] We also construct a variable for the duration (number of months) of an ambassadorial vacancy. Most diplomatic exits are due to rotation/replacement. 1.6 percent stem from other means, such as natural deaths (e.g., due to disease, old age) and in some rare instances, assassinations.

[14] Note, it is possible for the same country j to experience the vacancy of political appointed *and* career ambassadors, but at different times.

countries (see Table A1), spanning the period 1963 to 2014 (Table A2 provides summary statistics). Around 80 percent of transitions between appointments have an vacancy (N = 2,375). Figure 2 plots the average incidence of a vacancy across territories that are diplomatically recognized by the United States.[15] Vacancies occur approximately 22% of the time, with a median duration of around 5 months. Geographically, there is significant variation in the incidence of US ambassadorial vacancies; for example, vacancies in Europe tend to occur less frequently relative to those in African and Asian countries. Monthly US trade averages around $1.2 billion to each country, with exports comprising slightly over one-third of that total (=$440 million).

< FIGURE 2 AROUND HERE >

3.2 Baseline specification

Our baseline equation follows the reduced form specification in Berger et al. (2013). It is an extension on the gravity model of international trade, which has become the conventional framework to estimate the determinants of bilateral trade flows (e.g., Anderson and van Wincoop 2003, Baier and Bergstrand 2009). Specifically, we estimate variants of the following specification:

$$(1): \; T_{cmy} = \alpha_y + \alpha_c + \beta VACANCY_{cmy} + \rho ln\tau_{yc} - \rho(lnR_y + lnP_{cy}) + X_{cmy}\theta + \epsilon_{cmt}$$

where, T_{cmy} measures log US bilateral trade (in 2015 dollars) between country (c) and the United States in month m and year y.[16] We examine total US bilateral trade (with c), and separately, exports from the United States to c and US imports from c.[17] The latter two measures help us better differentiate the direction of diplomatic influence on US trade. In equation (1), $VACANCY_{cmy}$ is equal to 1 if there is an ambassadorial vacancy to country c in month m of year y and zero otherwise. Thus, our primary coefficient of interest is β, which gauges the average reduced-form impact of vacancies of US ambassadors for countries that experience a vacancy. If vacancies reduce US trade, we expect the coefficient on β to be negative.

[15] For the sample period, several notable territories do not enjoy formal diplomatic recognition with the United States, such as Burma, Cuba, and North Korea. The United States does not appoint ambassadors to many (small) island territories, particularly in the Pacific.

[16] We use the monthly CPI from the US Bureau of Labor Statistics (with 2015 as the base year, i.e., index=100) to ensure our trade data is measured in constant 2015 dollars.

[17] We are unable to normalize trade flows by country c GDP since national income data is unavailable at the monthly level. However, equation (1) controls for country's annual aggregate output (GDP), a fixed effect for each partner country c, and in some specifications, country x year fixed effects.

On the right hand side, α_y and α_c are vectors of year and country fixed effects, respectively. The former accounts for all common shocks experienced by countries (e.g., oil prices, US interest rates), as well as prevailing economic conditions in the United States, such as its per capita income.[18] The latter set of fixed effects accounts for all time-invariant country characteristics that might affect country c's trade with the United States, such as its geography (e.g., climatic conditions, landlocked), similar colonial relationships (e.g., former British colony) and resource endowments (e.g., commodity exporter).[19] In several stricter specifications, we control for country x year fixed effects which capture all country-specific characteristics that vary annually (e.g., per capita GDP).

We also control for a full set of bilateral costs, τ_{yc}, where τ_{yc} measures bilateral trade related costs when shipping goods between the United States and country c, and R_y and P_{cy} are multilateral resistance terms for the United States and countries c, respectively.[20] We model these bilateral trade costs following the approach in Berger et al. 2013 (pp. 871-872). First, we assume bilateral trade costs are affected by country c's distance to the United States, whether it shares a common language, border, membership in the GATT/WTO, and is party to a regional trade agreement.[21] Second, the coefficients for ln τ_{yc} and $[R_y + P_{cy}]$ are constrained to have the same coefficients but with opposite signs.

Finally, we control for a parsimonious set of time-varying country-level characteristics (X_{cy}) that can affect both US bilateral trade and the selection and assignment of US ambassadors. This includes country c's per capita GDP (from the World Bank 2015), a measure of its voting "similarity" with the United States in the United Nations General Assembly (from Bailey et al. 2017).[22] The latter controls for a country's foreign policy alignment (with the United States) and is guided by existing scholarship showing that strategic alignment can affect trade flows (e.g., Dixon and Moon 1993, Gowa 1994).[23] Since richer partners tend to

[18] Year fixed effects also account for prevailing political conditions in the United States, such as a particular US President (e.g., Nixon, Clinton, etc.), his partisanship, and the composition of the United States Congress.

[19] For example, firms in landlocked countries often face higher costs in shipping goods overseas. Firms in island countries, in contrast, experience lower shipping costs. Other country-specific, but time-invariant characteristics (e.g., distance to the United States, common border, common language, etc.) are captured in the multilateral resistance terms in equation (1).

[20] In practice, τ_{yc}, R_t, and P_{cy} can be complex non-linear functions of the full set of bilateral cost terms. For a derivation of these non-linear costs, see (Berger et al., 2013, pp. 870-873). For a more general derivation and discussion, see equation (12) in Anderson and van Wincoop (2003).

[21] This corresponds to equation (4) from Berger et al. (2013).

[22] In the standard gravity framework, per capita income measures the market sizes of each trading partner. Since equation (1) is restricted to trade with the United States only, the inclusion of year fixed effects measures the per capita income of the United States in every year.

[23] The results are robust when we control for alternate measures of foreign policy alignment, such as whether the trade partner is a US military ally. We prefer the UNGA similarity score as it exhibits greater

engage in greater trade (Anderson and van Wincoop 2003) - e.g., due to a more developed market, wealthier domestic consumers, and larger firms - we expect the coefficient on GDP per capita of c to be positive. Countries that are more aligned with the United States are also expected to engage in more trade with the United States.

4 Results

4.1 Reduced-form estimates

Table 1 reports our main reduced-form OLS estimates. Column 1 shows that a US ambassadorial vacancy reduces log total trade by -0.06 log points per month. The effect is precisely estimated, with a p-value < 0.01. Substantively, this amounts to a $159 million drop in total trade over 5 months (the modal length of a vacancy). This is equivalent to a 2.7% contraction in the volume of US bilateral trade. The estimated effect will be biased if vacancies are potentially endogenous to trade patterns. For example, if vacancies occur more often (or last longer in duration) with countries engaged in less bilateral trade with the United States. In our data, we observe that both vacancies and the duration of vacancies are negatively correlated with log US total trade (with p-values< 0.01).[24]

The specification in column 1 controls for the full set of bilateral trade costs. These effects generally corroborate prior findings. Countries with higher per capita income (and thus, larger potential market size) and are members of the same trade institutions (e.g., a free trade agreement, GATT/WTO) tend to trade more with the United States. Bilateral trade is lower with countries geographically farther from the United States and with less foreign policy alignment (as proxied with UNGA voting similarity), although the effects are not statistically significant.

Several of these controls (e.g., distance, common border) can be subsumed with country fixed effects (columns 2-4). This is advantageous in two ways. First, accounting for country fixed effects accounts for all observable and *unobservable* time-invariant characteristics that may affect US bilateral trade. Second, the introduction of country fixed effects helps explain more of the monthly variation in US bilateral trade, as indicated by the higher R^2 compared to column 1. This suggests that (unaccounted for) unobservable time-invariant factors may be important determinants of monthly US trade flows. While the introduction of country

cross-national and temporal variation than the alliance measure.

[24] Vacancies and their duration are also negatively correlated with log US exports and imports (with p-values < 0.01).

fixed effects in column 2 reduces the coefficient estimated of a vacancy on US total trade, the estimated effect remains negative and precisely estimated. The remaining columns in Table 1 examine the effect of vacancies on US exports and imports separately. Column 3 shows a vacancy has no effect on imports from abroad. The estimated effect is statistically indistinguishable from zero. In contrast, a US ambassadorial vacancy is associated with a contraction in US exports to partner countries, equal to about -1.5 log points every month (column 4). The effect is precisely estimated and suggests a decline in exports is driving the diminution in total trade observed in columns 1 and 2. This is noteworthy, since average monthly imports are 60 percent larger than average US exports ($705 million compared to $441 million).

In columns 5 and 6 we show the vacancy effect (with US exports) remains robust in stricter specifications that account for a fixed effect for each country and year combination (column 5) and each country and month interaction (column 6). The former specification controls for any country-specific characteristic that varies at the annual frequency, such as per capita income and UN voting similarity. In contrast, the latter specification captures all country-specific characteristics that vary across months, such as seasonal weather patterns that might affect agricultural exports. Given the robust effects in columns 4-6, our analysis going forward will focus primarily on the impact of US ambassadorial vacancies on US exports.

< TABLE 1 AROUND HERE >

Robustness. On balance, the results in Table 1 corroborate the hypotheses outlined in section 2.3 that an US ambassadorial vacancy may reduce diplomatic influence in promoting US commercial interests abroad. This finding holds in specifications that control for various personal characteristics of the (exiting) ambassador, including her age, sex, and prior diplomatic experience; and the quality of political institutions in the partner country, measured with its POLITY score (Table B1, columns 1-2). The effect of a vacancy on US exports also remains negative and precisely estimated in specifications that control for an additional battery of fixed effects. The vacancy effect holds when controlling for seasonal (monthly) patterns in US exports (e.g., more sales during the winter holiday season) with month fixed effects (Table B1, column 3). Controlling for these additional fixed effects does not appreciably affect the regression's explanatory power over those reported in Table 1 which control for year and country fixed effects.

We also perform a number of additional sensitivity tests. We verify that our results remain robust using a Poisson pseudo maximum likelihood estimator (Table B1, column 4)

as suggested by Silva and Tenreyro (2006). To account for the possibility of persistence of trade flows, that may be due to hysteresis stemming from the fixed costs of exporting, we control for the level of US exports 1 to 5 months preceding a vacancy (Table B1, columns 5 and 6). As expected, lagged values of US exports are a robust determinant of future exports (with declining magnitude for earlier months) and tend to reduce the coefficient size of a vacancy on US exports. Nevertheless, the effect of a vacancy on US exports remains negative and precisely estimated.

Our main finding is not affected by ambassadorial assignments to any particular region nor the volume of US exports. The vacancy effect remains negative and precisely estimated in specifications that drop observations from each continent and control for regional fixed effects (see Table B2) and in specifications across several "trimmed" samples based on the volume of US exports (see Table B3). The trimmed samples exclude observations from the top and bottom decile and quartile (based on the value of US exports) and across samples that include either the top or bottom half of observations (based on the value of US exports). Together, the analysis in Tables B2 and B3 suggest that potential outliers do not unduly our findings. Finally, as an extension to our main analysis, we corroborate our findings in Table 1 using fine-grained monthly level product data at the 3-digit level (see Appendix D).

4.2 Instrumental variable

Although equation (1) accounts for country-specific time invariant factors (α_c) and time-specific country-invariant conditions (α_y) that can affect US trade flows, it is plausible that our coefficient on interest, β may be biased due to factors that vary simultaneously by country and time period. One concern is endogenous selection: vacancies may be more likely when trade flows experience a decline (e.g., an example of the well-known Ashenfelter dip) and/or vacancies may be correlated with ambassadorial characteristics.[25] We address these concerns using an instrumental variable.

The instrument is based on two sources of exogeneity stemming from the politics of US ambassadorial appointments. First, the election of a *new* President tends to usher a change in the US diplomatic corps (see Figure 3a). For example, the election of a new US President – e.g., Barack Obama's victory over John McCain in November 2008, but not his win against Mitt Romney in November 2012 – tends to introduce a different approach to US foreign

[25] For the former, this may occur if an ambassador is removed from her post for poor economic performance. For the latter, for example, a vacancy from the departure of a politically appointed ambassador may be filled more quickly.

policy objectives, and with that a new diplomatic corps. Second, there is greater churning in ambassadorial postings in the month of and several months after the new President's inauguration (see Figure 3b).

< FIGURES 3a, 3b AROUND HERE >

These two empirical patterns are readily apparent in the data. Figure 3a shows an elevated rate of ambassadorial vacancies during the inaugural year of a new President (depicted with the vertical lines). Figure 3b hones in on the initial months of a new President's inaugural year.[26] It shows a greater probability of observing a vacancy in the first few months following a Presidential inauguration (in January). Since the election of US President is affected by factors largely unrelated to trade flows (and prior ambassadorial postings), we leverage the election of a new President as a plausibly exogenous change in the probability of observing an ambassadorial vacancy. Accordingly, we estimate variants of the following two stages least squares (2SLS) specification:

$$(2a): VACANCY_{cmy} = a_y + a_c + bZ_{my} + dln\tau_{yc} - d(lnR_y + lnP_{cy}) + X_{cmy}f + e_{cmy}$$

$$(2b): T_{cmy} = \alpha_y + \alpha_c + \beta VACANCY_{cmy} + \rho ln\tau_{yc} - \rho(lnR_t + lnP_{cy}) + X_{myc}\theta + \epsilon_{cmy}$$

Equation (2a) shows the first stage regression. It regresses the incidence of a US ambassadorial vacancy to country c in month m and year y ($VACANCY_{cmy}$) on a vector of country and year fixed effects, full set of bilateral trade costs, and time-varying country characteristics (e.g., log per capita of country c). These controls were discussed in the preceding section. Notably, Z_{my} is our instrument. It is equal to 1 in the first 5 months of a new Presidency and zero otherwise.[27] For example, for Barack Obama's presidency, the instrument is equal to 1 from January 2009 through May 2009, and then zero afterwards. Given the elevated propensity of observing an ambassadorial vacancy in new President years, we expect b to be positive in equation (2a). We use predicted values from equation (2a) to explain variation in bilateral trade flows in the second stage regression given by equation (2b). The first and second stage regressions are estimated jointly.

Exclusion restriction. While Z_{my} is plausibly exogenous to US trade with any particular country c, it is possible that other factors associated with the election of a new President may contaminate our identification strategy. As such, there maybe two potential violations of the

[26]The patterns of ambassadorial turnover after a Presidential election reveals that political appointees are more likely to depart (relative to career diplomats). Diplomats serving in countries with declining US exports (based on the 6-month difference in US exports) are also more likely to depart.

[27]The results are robust with different months (e.g., 1, 2, .. up to 10) following the inauguration of a new President.

exclusion restriction. First, a change in the partisanship of the President (from a Republican to Democrat, or vice-versa) may alter the objectives of US foreign economic policy. For example, a Republican President may be more likely to champion US commercial interests abroad than a Democratic leader.[28] Second, through coattail effects, the election of a new President can change the composition of Congress; which in turn may change US foreign economic policy. Milner and Tingley (2010), for example, show that Republican legislators are more likely to support foreign aid programs that are tied to US exports. We address these concerns flexibly in our main 2SLS specification by including three additional controls in the first and second stage regressions. First, we interact our instrument with a President's political party. Second, we interact our instrument with the majority party in power in the House of Representatives and Senate. While intentionally quite blunt, together, these three additional interactive terms capture any differential effect of partisanship at the executive and legislative level on US ambassadorial vacancies and trade flows.

2SLS results. Table 2 presents our 2SLS estimates. Panels A and B report the second and corresponding first-stage estimates, respectively. In column 1, instrumented vacancy exhibits a robust, negative effect on monthly US exports. The coefficient (=-0.11) is larger in magnitude than the corresponding estimates in Table 1 and suggest those OLS estimates are biased downwards. In the first stage, the instrumental variable is "strong" (with a F-statistic that exceeds the threshold of 10 for weak instruments) and implies that a vacancy is 15 percent more likely in the first 5 months after a new President's inauguration than in other months.

In column 2, we account for the possibility that the instrument may affect exports through non-domestic political channels, such as foreign policy alignment. We approach this conservatively by including the interaction of our instrument (Z_{my}) with all our confounders (e.g., US ally x Z_{my}, UNGA voting x Z_{my}, log GDP per capita x Z_{my}) as additional controls in both the first and second stage regressions. Finally, to compare with our most conservative OLS estimate (Table B1, column 7), column 3 controls for lagged US exports (from 1 to 5 months). In this specification, instrumented vacancy continues to exhibit a robust, negative effect on monthly US exports.

It is informative to compare our 2SLS estimates to the analogous OLS estimates. There are three main reasons that potentially explain the difference. First, the 2SLS strategy might

[28] In Appendix E, we provide more direct evidence that changes in US Presidential transitions does *not* affect trade via the ambassadorial channel.

be correcting for random measurement error in the endogenous variable. Second, the downward bias suggests the instrument may be correcting for (potential) selection effects in the incidence and/or duration of vacancies. For instance, if vacancies are endogenous with any of the baseline controls, its OLS point estimate is likely to be downward biased.[29] Moreover, as we document in section 5, selection effects could arise from a combination of factors, such as the elevated propensity of vacancies of non-politically appointed ambassadors, who also tend to be stationed in poorer countries where cheating on trade may be more prevalent during a vacancy period. Since the volume of US exports tends to decline to poorer countries (i.e., the coefficient on log GDP per capita is negative in all the specifications), correcting for it with the instrumental variable will increase the magnitude of the vacancy (negative) effect. Third, our instrument measures the local average treatment effect (LATE) induced by the inauguration of a President in the first 5 months of his *first* term. It seems unlikely that other countries would all strategically reduce their imports from the United States during these first few months. Indeed, the reduced form estimate of the instrument on US exports is an order of magnitude (10 fold) times smaller in magnitude than the IV estimate. This suggests the instrument's LATE operates through an ambassadorial vacancy.

< TABLE 2 AROUND HERE >

5 Evaluating channels

We now provide evidence that much of the decrease in US exports associated with an ambassadorial vacancy stems from the departure of a career diplomat and occurs in poorer countries, where fewer institutional constraints may be conducive to cheating in economic transactions.

5.1 Ambassador characteristics

US ambassadors fall into two broad categories: political appointees and career diplomats. Career diplomats receive their posts through traditional civil service channels, including taking the foreign service exam and progressively rising through the ranks of the State department (Halperin and Clapp 2007, Arias and Smith 2018). Career diplomats are selected for relevant educational and cultural experience, and also gain significant experience at their posts, often staying for long periods. By the time they are selected for an ambassadorship,

[29] In the data, US ambassadorial vacancies occur more often with poorer trading partners.

career diplomats have gained decades of experience in diplomatic relations, particularly knowledge of how the state department functions and the bureaucracy of their countries of expertise. Career diplomats are deeply embedded in their host countries and have skilled staffs of country experts working to further US economic and strategic interests.

Conversely, political appointees have little to no previous experience in diplomacy; such positions are typically given as a means to reward loyal supporters (Hollbaugh 2015, Haglund 2015). This suggests that career diplomats are likely to be more effective managers/CEOs of their embassies and overall bilateral relationship; thus, their departure is likely to have a more pronounced effect on trade flows. We evaluate this channel by including the interaction of a dummy variable for a career diplomat ($CAREER_{cmy}$) with $VACANCY_{cmy}$ as an additional regressor in our baseline specifications.[30] If our conjecture is correct, $VACANCY_{cmy} \times CAREER_{cmy}$ should be negatively associated with US exports.

Table 3 provides evidence supporting this conjecture. Column 1 shows the departure of career ambassadors drives the reduction in US exports during a vacancy. This is evident from the negative (=-0.021) and precisely estimated coefficient on the interaction term. In contrast, the coefficient on $VACANCY_{cmy}$, which measures the effect of departing politically appointed ambassadors, is zero. During a non-vacancy period, the level of US exports to countries with a career diplomat tends to be lower. As we show in section 5.3, this may be due to the stationing of career diplomats to poorer countries where the level of US exports tends to be lower.

An alternate, and perhaps more direct, approach is to contrast the effect of vacancies across separate samples of career and politically appointed ambassadors. This split sample analysis reveals the vacancies associated with the departure of career diplomats reduces US exports (column 2) but the departure of politically appointed ambassadors has no impact (column 3). These inferences hold (in our sample of career diplomats) robust in specifications that control for month and country x year fixed effects and estimation via 2SLS (columns 4-6).

< TABLE 3 AROUND HERE >

[30] $CAREER_{cmy}$ is an indicator variable equal to 1 if (departing) ambassador to country c came through the traditional civil service channels and equal to zero if he/she was a political appointee. There are a few instances in which we could not identify whether the ambassador was a political appointee or a career diplomat. For our analysis of channels, we coded these observations as missing for $CAREER$.

5.2 Bilateral relationship

We now evaluate whether particular features of the United States' bilateral relationship may also affect the efficacy of its ambassadors on US trade performance. In section 2, we discussed three plausible channels through which diplomacy might affect bilateral trade: membership in trade agreements with the United States, broader foreign policy alignment, and the partner country's resolve to "cheat" on trade. As in Table 3 we evaluate the plausibility of a particular channel, if its interaction with an ambassadorial vacancy affects US exports.

< TABLE 4 AROUND HERE >

Table 4 reveals that several channels influence whether an ambassadorial vacancy affects US export performance. Columns 1 and 2 probe the effect of membership in a trade agreement with the United States. While both membership in a regional trade agreement (e.g., NAFTA) and the GATT/WTO is associated with higher levels of US exports, only the GATT/WTO seems to lessen the decline in exports during a vacancy, as indicated by the positive coefficient on $VACANCY_{cmy} \times GATT_{cmy}$ (column 2). This inference is reinforced in a specification that *excludes* US trade to GATT members (see Table B4, column 3). In this sample of non-GATT members, the vacancy effect is nearly 75 percent larger in magnitude compared to the baseline estimates in Table 1 (i.e., -0.026 compared to -0.015). Since the GATT/WTO contains formal dispute settlement mechanisms, the presence of a weaker vacancy effect in GATT/WTO member countries suggests that membership in this organization may exhibit a similar monitoring and enforcement roe of ambassadors (we explore the latter possibility shortly).

Broader foreign policy alignment, particularly in national security, seems to mediate the vacancy effect. During a vacancy, US exports do not fall as much to countries that exhibit similar voting patterns with the United States in the UN General Assembly (column 3). While positive, the coefficient on $VACANCY_{cmy} \times UNGA_{cmy}$ is not statistically significant. In contrast, during a vacancy, US exports are largely unaffected to US allies (column 4). In non-allies, US exports decline during a vacancy (coefficient= -0.021).

5.3 Partner country income

Column 4 shows the vacancy effect varies by the partner country's level of economic development. The positive and precisely estimate on the interaction of $VACANCY$ and per capita income implies that during an ambassadorial vacancy, US exports to richer countries tend to decline less. Plotting the marginal effect as partner country per capita varies reveals that

in wealthier trade partners, the vacancy effect vanishes and is statistically indistinguishable from zero (see Figure C1). Furthermore, examining the vacancy effect for each country relative to its level of US exports during periods with an ambassador points to the substantive importance of per capita income in the partner country. Across all countries, on average, each month of a vacancy contracts US exports by around 1.7 percent relative to the level of US exports with a sitting ambassador. However, this contraction tends to be larger in poorer countries (see Figure C4). For example, in Burundi and Nepal, US exports contract by 10.5 and 5.1 percent (relative to their level of US exports with an ambassador). In France and Germany this reduction is practically nil (0.05%).

The results in Table 4 thus far suggest the vacancy effect on US exports is influenced by two types of channels: (1) formal trade and military agreements (e.g., member of GATT/WTO, US military ally) and (2) by the partner country's per capita income. These channels, of course, are likely to be correlated. For example, many high income countries are US allies in the North Atlantic Treaty Organization. Relatedly, these channels may be correlated with the type of US ambassador. For instance, career diplomats are more likely to be stationed in developing countries and non-allies (Hollbaugh 2015). This correlation suggests that the OLS estimate of $VACANCY \times$ US ally (Table 4, column 4) may be biased upward (i.e., the alliance effect in the interaction term is partially capturing the positive correlation associated with the departure of a *non-career* ambassador). These potential correlations in the right hand side variables, therefore, suggest estimation via OLS may be biased. For instance, it is plausible that the more pronounced vacancy effect in developing countries could be driven in part by the departure of career diplomats (who are more likely to assigned to those locations) and/or because poorer countries are not in formal military alliances with the United States. Cognizant of these concerns, Table 5 reports results from our strategy to better untangle these causal relationships.

We begin by estimating a selection model for career diplomats, where we regress $CAREER_{cmy}$ on our channels, the baseline controls, and country and year fixed effects. Column 1 in Table 5 reveals that US career diplomats are more likely to serve in poorer countries, non-allies of the United States, and members of the GATT/WTO.[31] Interestingly, as Table 4 showed, three partner country characteristics are plausible channels mediating the effect of a vacancy on US exports. This suggests that empirically isolating the *causal* channels associated with the vacancy effect confronts challenges with endogeneity.

[31]For instance, career diplomats are 13.5 percent more likely to be stationed in countries that are not US military allies.

< TABLE 5 AROUND HERE >

We address this challenge by adopting a "shift-share" or Bartik-style instrumental variable (Nunn and Qian 2014, Goldsmith-Pinkham et al. 2020).[32] Our instrumental variable, Z'_{cmy} aims to identify the causal effect of each 'interactive channel' (e.g., $VACANCY_{cmy} \times ALLY_{cmy}$) on US exports. Specifically, Z'_{cmy} is the product of each channel (e.g., $ALLY_{cmy}$) with an indicator variable set to 1 for the first 5 months of a new President's term and zero otherwise (i.e., Z_{my} from the previous section). In Z'_{cmy}, the latter indicator variable (i.e., Z_{my}) comprises a plausibly exogenous shift variable that explains some (significant) share of the variation in $VACANCY_{cmy}$.[33] In contrast, each channel may be interpreted as a share variable, which could be endogenous. Even though Z'_{cmy} contains a plausibly endogenous component (i.e., each channel), the instrument is (causally) identified if (1) the other component is plausibly exogenous and (2) the potentially endogenous component is controlled for in the first and second stage regressions (Bun and Harrison 2019).

Column 2 reports our estimates from this exercise for our main sample of interest, career diplomats. The F-statistics on the (excluded) instruments exceed the threshold for weak instruments, giving us greater confidence to interpret the second stage estimates causally. In the second stage, whereas our OLS specifications showed that being a US ally and/or GATT member mediated the vacancy effect, this does not necessarily hold when we instrument for these channels. In contrast, per capita income of the partner country remains a robust channel. Here, the positive coefficient (=0.1) implies the vacancy of a career diplomat stationed in *poorer* countries contributes to a larger decline in US exports.

5.4 Evidence of cheating

Substantively, since poorer countries tend to exhibit weaker governance institutions (Olken and Pande 2012), our findings suggest the vacancy effect may increase in more corrupt settings where the incentive to cheat in economic transactions may be more prevalent. We evaluate this conjecture in two ways. Our first approach leverages cross-sectional variation in the quality of governance, while our second strategy exploits the panel structure of our data and information on the duration of vacancies.

[32] Nunn and Qian (2014) apply this strategy to study the effects of foreign aid on civil war. Goldsmith-Pinkham et al. (2020) characterize the statistical properties that achieve causal identification with this approach.

[33] Recall, Table 2 shows Z_{my} is a strong predictor of variation in vacancies.

Cheating across institutional settings. Table 6 reports estimates from our first approach that uses fine-grained measures of bureaucratic quality and control of corruption at the monthly frequency from Political Risk Services. Across all the specifications, a greater value of each indicator implies a higher quality of governance; and, reassuringly, each indicator is positively correlated with per capita GDP (see Figures A1 and A2). With this interpretation in mind, the positive coefficients on the interaction of each governance indicator and $VACANCY_{cmy}$ imply the vacancy effect (which remains negative and statistically significant) is smaller in magnitude in countries deemed to have a higher quality of bureaucratic capacity and control on corruption (see Figures C2 and C3 for corresponding marginal effects plots). In column 3, for example, the total marginal effect of an ambassadorial vacancy is completely offset (approximately zero) in countries in which corruption is under control (with scores equal to 5 or 6). These countries tend to be wealthy.

< TABLE 6 AROUND HERE >

Cheating in the short-run. Our second strategy exploits the panel structure of our data to detect the (possible) presence of cheating. Specifically, if US trade partners are cheating during an ambassadorial vacancy, they are likely to do so in the initial few months of a vacancy when detection and enforcement (e.g., retaliatory measures) are less likely. We evaluate this conjecture by examining how the vacancy effect varies over its duration. While the typical vacancy lasts about 5.6 months, the distribution of vacancy length is skewed right (see Figure A3), with about one-third of vacancies lasting (at most) under 3 months, another one-third lasting between 4 to 6 months, and the remaining (final) third lasting 7 to 22 months.[34] Guided by these discrete breaks at each tercile, we estimate the following specification:

$$(3):\ T_{cmy} = \alpha_y + \alpha_c + \textstyle\sum_{j=1}^{j=3} \beta_j VACANCY_{\mathbf{j},cmy} + \rho ln\tau_{yc} - \rho(lnR_y + lnP_{cy}) + X_{cmy}\theta + \epsilon_{cmt}$$

Equation (3) modifies our baseline specification (given by equation 1) by decomposing $VACANCY_{cmy}$ at each tercile of vacancy duration (j=1, 2, 3). Specifically, $VACANCY_{\mathbf{1},cmy}$ is equal to 1 in the 1^{st}, 2^{nd}, or 3^{rd} month of a vacancy (and zero otherwise), $VACANCY_{\mathbf{2},cmy}$ is equal to 1 in the 4^{th}, 5^{th}, or 6^{th} month of a vacancy (and zero otherwise), and $VACANCY_{\mathbf{3},cmy}$ is equal to 1 in the 7^{th} and up to 22^{nd} month of vacancy (and zero otherwise). Thus, the coefficient on β_1 gauges the average reduced-form impact of vacancy in its first 3 months.

[34] About 15 percent of vacancies last for 9 or more months.

< FIGURES 4a, 4b AROUND HERE >

Figure 4a graphs the coefficient estimates on β_1, $\beta 2$, and β_3 and their corresponding 95 percent confidence interval. The estimates reveal a sharp and statistically significant drop in US exports in the first 3 months of an ambassadorial vacancy. For vacancies that last longer than 3 months, the effect wanes and is statistically indistinguishable from zero. In figure 4b, we report coefficient estimates that decompose the vacancy effect at each duration month.[35] These coefficients reveal that US exports decline in the first and second months of an ambassadorial vacancy, but are largely unaffected thereafter. Unsurprisingly, the estimated effects are less precise (i.e., exhibit larger confidence intervals) for vacancies that are longer due in part to a fewer number of vacancies that meet the duration-length threshold.[36]

5.5 Evaluating other channels

Our analysis thus far points to the departure of career ambassadors and poorer income and governance conditions in partner countries as channels underlying the vacancy effect. Yet, it is plausible this effect may arise from specific political economy factors in both the United States and the partner country. In Appendix E, we evaluate and discount two other plausible channels: coercive diplomacy and domestic politics.[37]

[35] We estimate equation (3) with an indicator variable equal to 1 if a vacancy occurs in (lasts up to) that month. For example, $VACANCY_{\mathbf{10},cmy}$ is equal to 1 in the 10^{th} of a vacancy and zero otherwise. If a vacancy does not last at least 10 months, the value is zero. In total we have 22 indicator variables.

[36] Our interpretation of the patterns in Figures 4a and 4b are plausibly consistent with "learning" whereby permanent embassy officials learn over time how to cover for the missing ambassador. If this explanation is valid, presumably officials in embassies that experience ambassadorial vacancies more frequently would be in a better position to cover for the missing ambassador. To evaluate this possibility, we compared how the vacancy effect varies by each tercile (or month) across samples with "frequent" and "less frequent" vacancies. Countries with frequent vacancies are those whose average propensity to experience a vacancy is greater than the median (across the full sample of all US trading partners). Less frequent countries are those with average values below this median. Our analysis – which is plotted in Figures C5a and C5b – reveals the vacancy effect to be negative and statistically significant in the first 3 months across both frequent and less frequent country samples. Notably, the estimated vacancy effect tends to be slightly larger in magnitude in countries with frequent vacancies, although difference in coefficient estimates is not statistically significant compared to those generated from the less frequent sample (i.e., the 95 percent confidence intervals associated with each coefficient estimate overlaps). Taken together, these patterns suggest that "learning" is not necessarily observed.

[37] Since the findings are largely "'null" for these channels, we relegate our discussion to an appendix.

6 Conclusion

Policymakers frequently tout the economic benefits of diplomacy, particularly its potential to facilitate trade. This paper evaluates this claim by studying the impact of ambassadors from the United States, a major trading nation with a large diplomatic corps. We match monthly level data on the timing and duration of US ambassadorial appointments (and resulting vacancies) to US bilateral trade to over 170 countries. Cognizant of concerns with omitted variables and endogenous selection, our analysis provides robust evidence that ambassadorial vacancies contribute to contractions in US exports. We probe several plausible channels, identifying two main ones for this vacancy effect. First, the vacancy effect occurs primarily from the departure of career ambassadors (i.e., individuals that rise up through official channels and acquire specialized training and knowledge through the process). Second, the reduction in exports tends to be larger with poorer countries, where the institutional setting may be more conducive to cheating on trade relationships during a vacancy. These channels are not mutually exclusive: career diplomats tend to be stationed in poorer countries and their departures contribute to a decline in US exports during a vacancy.

Substantively, our findings point to the important role that competent bureaucrats can play in enhancing economic welfare. Our paper situates this in a bilateral context, identifying how both the characteristics of the bureaucrat and where she is stationed can influence trade. More broadly, our paper shows that foreign *policy* can affect bilateral trade. This suggests that incorporating measures of diplomatic influence into existing empirical models of trade may be beneficial in explaining trade flows. Indeed, our findings offer avenues for future research in political economy and international economics. One potential direction is to explore whether a vacancy effect generalizes beyond the US case: do ambassadors from other countries facilitate their countries' exports and possibly other types of economic engagement (e.g., purchases of overseas assets and equities, the initiation of trade and investment disputes)? Another avenue might explore whether the vacancies of ambassadors *sent* to the United States affects bilateral trade, particularly US imports. Our empirical analysis focuses on the contemporary (post-1960) period. A natural extension might evaluate the effect of diplomacy on trade farther back in time, particularly when trade tended to be less institutionalized and prone to cheating among trading partners (e.g., through beggar-thy-neighbor trade policies in the 1920s and 1930s).

References

Anderson, James E., and van Wincoop, Eric. 2003. Gravity with Gravitas: A Solution to the Border Puzzle. *American Economic Review*, **93**(41), 170–192.

Arias, Eric, and Smith, Alastair. 2018. Tenure, promotion and performance: The career path of US ambassadors. *The Review of International Organizations*, **13(4)**, 77–103.

Ayal, Eliezer B., and Karras, Georgios. 1996. Bureaucracy, investment, and growth. *Economic Letters*, **51(2)**, 233–239.

Bagir, Yusuf Kenan. 2020. Impact of the presence of embassies on trade: Evidence from Turkey. *World Trade Review*, **19**, 51–60.

Bagwell, Kyle, Staiger, Robert W., and Yurukoglu, Ali. 2020. Multilateral Trade Bargaining: A First Look at the GATT Bargaining Records. *American Economic Journal: Applied Economics*, **12(3)**, 72–105.

Baier, Scott, and Bergstrand, Jeffrey. 2009. Estimating the effects of free trade agreements on international trade flows using matching econometrics. *Journal of International Economics*, **77(1)**, 63–76.

Bailey, Michael, Strezhnev, Anton, and Voeten, Erik. 2017. Estimating Dynamic State Preferences from United Nations Voting Data. *Journal of Conflict Resolution*, **61(2)**, 430–456.

Beer, Jeremy. 2012. *Ukraine Country Reader*. Association for Diplomatic Studies and Training: Foreign Affairs Oral History Collections.

Berger, Daniel, Easterly, William, Nunn, Nathan, and Satyanath, Shanker. 2013. Commercial Imperialism? Political Influence and Trade During the Cold War. *American Economic Review*, **103(2)**, 863–896.

Bjorkman, Martina, and Svensson, Jakob. 2009. Power to the People: Evidence from a Randomized Field Experiment of Community-based Monitoring in Uganda. *Quarterly Journal of Economics*, **124(2)**, 797–827.

Bown, Chad P., and Crowley, Meredith A. 2016. The empirical landscape of trade policy. Pages 4–89 of: Bagwell, Kyle, and Staiger, Robert W. (eds), *Handbook of Commercial Policy*. Oxford: North-Holland.

Bun, Maurice G., and Harrison, Teresa D. 2019. IV estimation of regression models including endogenous interaction terms. *Econometrics Review*, **10(7)**, 814–827.

C-SPAN. 2006. US Senate Foreign Relations Committee Transcript, "Extradition Treaty and Ambassadorial Appointments", September 7.

Davis, Christina. 2008. Linkage Diplomacy: Economic and Security Bargaining in the Anglo-Japanese Alliance, 1902–23. *International Security*, **33(3)**, 143–179.

Dixon, William J., and Moon, Bruce E. 1993. Political Similarity and American Foreign Trade Patterns. *Political Research Quarterly*, **46(1)**, 5–25.

Felbermayr, Gabriel, Kirilakha, Aleksandra, Syropoulos, Constantinos, Yalcin, Erdal, and Yotov, Yoto. 2020. The Global Sanctions Database. *European Economic Review*, **129**, 103561.

Ferguson, Shon, and Forslid, Rikard. 2013. Sizing Up the Impact of Embassies on Exports. *The Scandinavian Journal of Economics*, **121(1)**, 278–297.

Fuchs, Andreas, and Klann, Nils-Hendrik. 2013. Paying a Visit: The Dalai Lama Effect on International Trade. *Journal of International Economics*, **91(1)**, 164–177.

Gertz, Geoffrey. 2018. Commercial Diplomacy and Political Risk. *International Studies Quarterly*, **62(1)**, 94–107.

Goldsmith-Pinkham, Paul, Sorkin, Isaac, and Swift, Henry. 2020. Bartik Instruments: What, When, Why, and How. *American Economic Review*, **110(8)**, 2586–2624.

Gowa, Joanne. 1994. *Allies, Adversaries, and International Trade*. Princeton, NJ: Princeton University Press.

Haglund, E. T. 2015. Striped pants versus fat cats: Ambassadorial performance of career diplomats and political appointees. *Presidential Studies Quarterly*, **45(4)**, 653–678.

Halperin, Morton H., and Clapp, Priscilla. 2007. *Bureaucratic Politics and Foreign Policy*. Brookings Institution Press.

Head, Keith, and Ries, John. 2010. Do trade missions increase trade? *Canadian Journal of Economics*, **43(3)**, 754–775.

Hollbaugh, Gary. 2015. The Political Determinants of Ambassadorial Appointments. *Presidential Studies Quarterly*, **45(3)**, 445–66.

Keohane, Robert O. 1984. *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton University Press.

Kerry, John. 2014. Logjam in the Senate: Hampering America's Role in the World. *United States Department of State*.

Khemani, Stuti. 2007. Does Delegation of Fiscal Policy to an Independent Agency Make a Difference? Evidence from Intergovernmental Transfers in India. *Journal of Development Economics*, **82(2)**, 464–484.

Lederman, Daniel, Olarreaga, Marcelo, and Payton, Lucy. 2010. Export promotion agencies: Do they work? *Journal of Development Economics*, **91**(2), 257–265.

Li, Jing, Meyer, Klaus E., Hua, Zhang, and Ding, Yuan. 2018. Diplomatic and Corporate Networks: Bridges to Foreign Locations. *Journal of International Business Studies*, **49(6)**, 659–683.

Malis, Matt. 2021. Conflict, Cooperation, and Delegated Diplomacy. *International Organization*, 1–40.

Malone, David. 2013. The Modern Diplomatic Mission. Pages 121–141 of: Andrew Cooper, Jorge Heine, and Thakur, Ramesh (eds), *Oxford Handbook of Modern Diplomacy*. Oxford University.

Martin, Philippe, Mayer, Thierry, , and Thoenig, Mathias. 2008. Make Trade Not War. *Review of Economic Studies*, **75(3)**, 585–900.

Milner, Helen V., and Tingley, Dustin H. 2010. The Political Economy of US Foreign Aid: American Legislators and the Domestic Politics of Aid. *Economics and Politics*, **41**(2), 200–232.

Moons, Selwyn J.V., and van Berjeijk, Peter A.G. 2017. Does Economic Diplomacy Work? A Meta-analysis. *World Economy*, **40(2)**, 336–368.

Nelson, David D. 2014. Aiding American Businesses Abroad: Government Action to Help Beleaguered American Firms and Investors. *Hearing before the Subcommittee on Terrorism, Nonproliferation and Trade of the Committee on Foreign Affairs*.

Nitsch, Volker. 2007. State Visits and International Trade. *World Economy*, **30(12)**, 41–66.

Nunn, Nathan, and Qian, Nancy. 2014. US Food Aid and Civil Conflict. *American Economic Review*, **104(6)**, 803–832.

Olken, Benjamin, and Pande, Rohini. 2012. Corruption in Developing Countries. *Annual Review of Economics*, **7**, 479–509.

Ossa, Ralph. 2011. A "new trade" theory of GATT/WTO negotiations. *Journal of Political Economy*, **119(1)**, 122–152.

Peyton, Buddy, Bajjalieh, Joseph, Shalmon, Dan, Martin, Michael, and Bonaguro, Jonathan. 2020. Coup D'Etat Project Dataset. *Cline Center for Advanced Social Research*, **V2**.

Prendergast, Canice. 2007. The Motivation and Bias of Bureaucrats. *American Economic Review*, **97(1)**, 180–196.

Rose, Andrew K. 2007. The Foreign Service and Foreign Trade: Embassies as Export Promotion. *National Bureau of Economics Research, Cambridge USA*, **Working Paper 11111**.

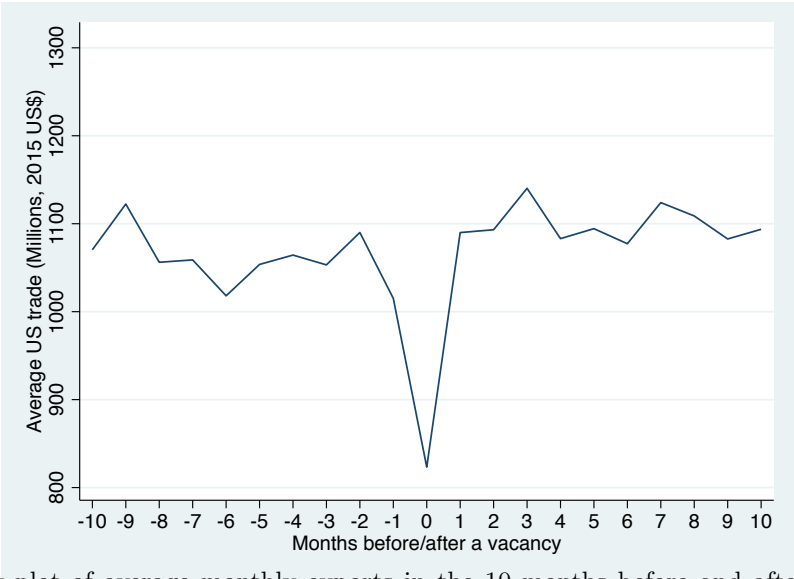
Selmier, W. Travis, and Oh, Chang Hoon. 2013. Economic Diplomacy and International Trade: ASEAN's Quest to Value-Claim. *The World Economy*, **36(2)**, 233–252.

Silva, Santos, and Tenreyro, Silvana. 2006. The Log of Gravity. *Review of Economics and Statistics*, **88(4)**, 641–658.

van Bergeijk, Peter A.G. 2014. *Economic diplomacy and the geography of international trade.* London: Edward Elgar Publishing.

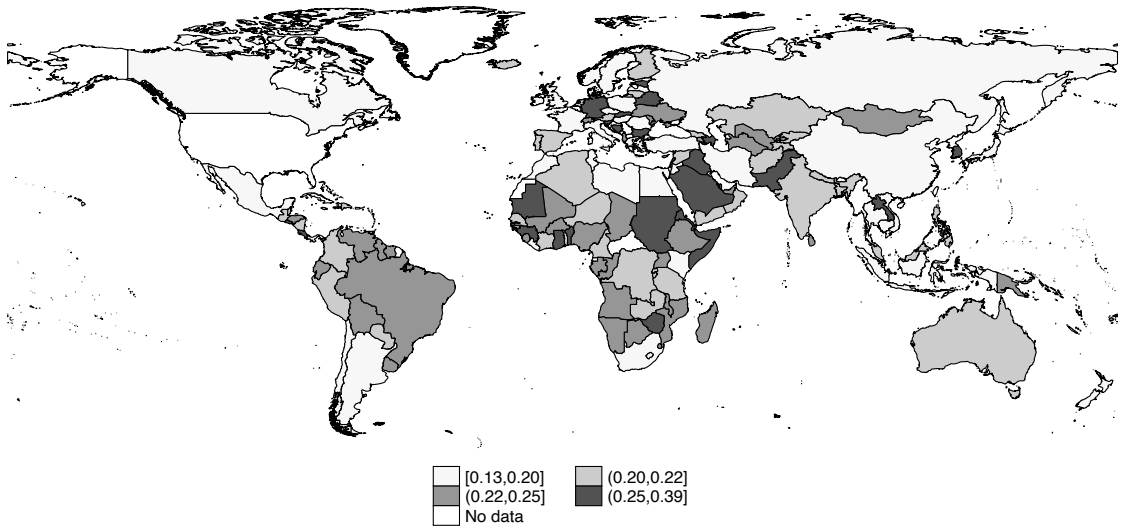
Yakop, Mina, and van Berjeijk, Peter A.G. 2009. The weight of economic diplomacy. *International Institute of Social Studies*, **WP 478**.

Figure 1: *Average monthly volume of US trade around an ambassadorial vacancy*



Notes: Event study plot of average monthly exports in the 10 months before and after an ambassadorial vacancy (t=-10, -9, ...9, 10). Month t=0 corresponds to the average monthly value of US trade during a vacancy spell. The average spell lasts about 5 months.

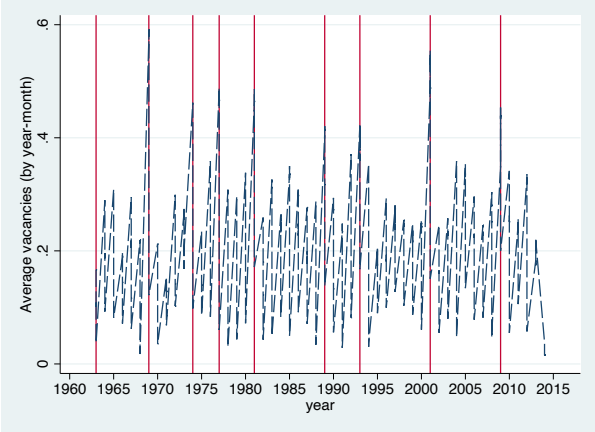
Figure 2: *Incidence of an ambassadorial vacancy across territories diplomatically recognized by the United States*



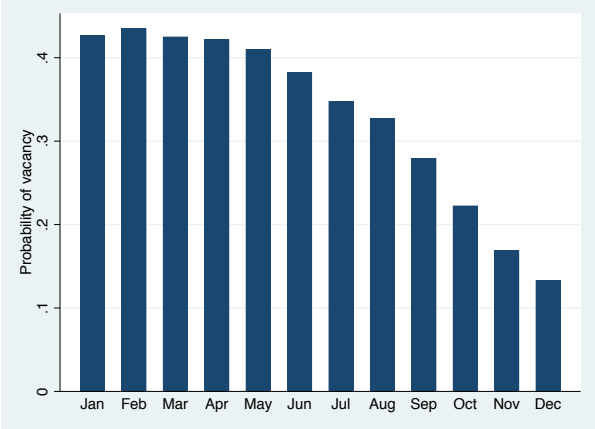
Notes: Incidence is the number of vacant months as a share of overall months.

Figure 3: *Ambassadorial vacancies across time*

a: *Monthly average*



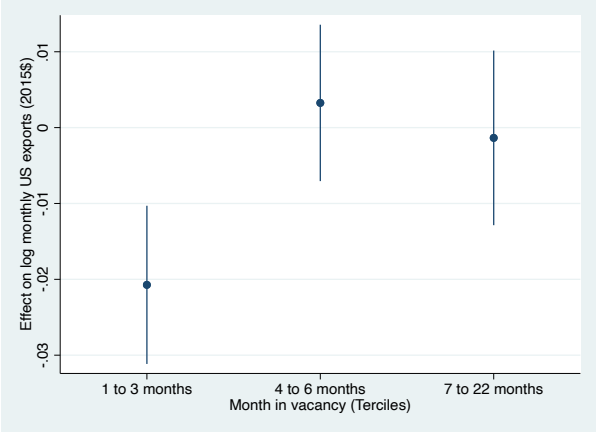
b: *During the first (inaugural) year of new President*



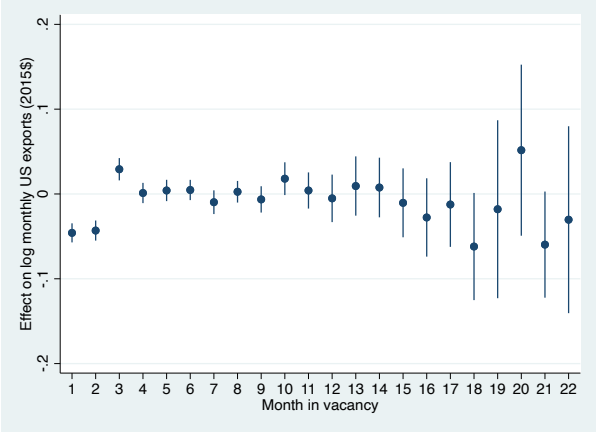
Notes: Figure 4a plots the average monthly incidence of a vacancy from 1963-2014. In the figure, the vertical lines correspond to the month of a Presidential inauguration. For example, 1977 refers to Jimmy Carter's inauguration to the US Presidency. Figure 4b plots the probability of observing a vacancy in each month during the year in which a new President is inaugurated.

Figure 4: *The duration of ambassadorial vacancies and US exports*:

a: *By terciles of vacancy length*



b: *By each month of a vacancy*



Notes: The figures plot the coefficients and corresponding 95 percent confidence interval for the vacancy duration indicators $VACANCY_{\mathbf{j},cmy}$ in equation 2 corresponding to terciles (figure 3a) and months (figure 3b) for vacancy duration. Each specification controls for calendar baseline controls, and country and year fixed effects. These coefficients are not plotted. Baseline controls include: Log GDP per capita of the partner country c, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States.

Tables

Table 1: *The effect of ambassadorial vacancies on US bilateral trade*

	Log US total trade		Log US imports	Log US exports		
	(1)	(2)	(3)	(4)	(5)	(6)
Ambassadorial vacancy	-0.060	-0.008	-0.002	-0.015	-0.013	-0.010
	(0.015)***	(0.004)**	(0.005)	(0.004)***	(0.003)***	(0.004)**
Controls						
Log per capita income	0.302	0.466	0.569	0.357		0.357
	(0.045)***	(0.056)***	(0.072)***	(0.049)***		(0.049)***
UNGA voting similarity	0.157	0.065	0.126	0.019		0.020
	(0.322)	(0.093)	(0.116)	(0.083)		(0.084)
Trade cost/B&B MR controls						
Log distance	-0.049					
	(0.103)					
Border	0.569					
	(0.711)					
Common colonizer	1.272					
	(0.118)***					
Common language	-0.238					
	(0.118)**					
US FTA participant	1.031	0.258	0.364	0.243	0.004	0.0242
	(0.536)*	(0.113)**	(0.136)***	(0.104)**	(0.018)	(0.106)**
GATT/WTO participant	0.317	0.096	0.127	0.079	0.028	0.079
indicator	(0.092)***	(0.036)***	(0.051)**	(0.036)**	(0.020)	(0.037)**
Number of regional trade	-0.009	-0.002	-0.001	-0.002		-0.002
agreements	(0.015)	(0.003)	(0.004)	(0.003)		(0.003)
Constant	-0.372	-1.898	-3.317	-1.262	1.657	-1.263
	(1.004)	(0.506)***	(0.651)***	(0.424)***	(0.015)***	(0.430)***
Country fixed effects	No	Yes	Yes	Yes		
Year fixed effects	Yes	Yes	Yes	Yes		Yes
Country FE x Year FE					Yes	
Country FE x Month FE						Yes
R^2	0.37	0.93	0.90	0.93	0.97	0.93
Observations	69,134	69,134	70,438	73,955	73,955	73,955
Countries	172	172	172	172	172	172

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via OLS. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. In columns 4-6, the dependent variable is log US exports (2015 US$).

Table 2: *2SLS estimates for the effect of ambassadorial vacancies on US exports*

	Log US exports			
	(1)	(2)	(3)	
Panel A: 2SLS				
			Controls x Instrument	
Ambassadorial vacancy	-0.114	-0.115	-0.117	-0.128
	(0.043)***	(0.043)***	(0.042)***	(0.036)***
Lagged exports				
Log US exports in t-1				0.307
				(0.011)***
Log US exports in t-2				0.175
				(0.006)***
Log US exports in t-3				0.121
				(0.007)***
Log US exports in t-4				0.106
				(0.007)***
Log US exports in t-5				0.119
				(0.007)***
Panel B: First stage				
			Vacancy	
New President, 5 months	0.151	0.151	0.15	0.176
	(0.018)***	(0.018)***	(0.018)***	(0.022)***
F-statistic	68.90	68.69	68.85	63.68
Controls in both panels				
Baseline controls	Yes	Yes	Yes	Yes
Controls x Instrument	No	Yes	Yes	Yes
Politics x Instrument	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	No	Yes
Year fixed effects	Yes	Yes	No	Yes
Country FE x Year FE	No	No	Yes	No
Observations	73955	73955	73955	73955
Countries	172	172	172	171

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via 2SLS. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. Panel A reports the second stage estimates. Panel B reports the coefficient estimate on the instrumental variable in the first stage regression. The instrument (Z) is equal to 1 for the first 5 months of a "new" President's (first) term in office. All specifications control for a set of baseline controls, a vector of political variables interacted with the instrument (Z), country fixed effects, year fixed effects, and a constant. Baseline controls include: Log GDP per capita of the partner country c, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States. "Politics" includes: an indicator variables (0=Democrat, 1=Republican) for the President's party, majority party in the US House of Representatives and majority party in the US Senate. Columns 2 and 3 control for the interaction of the instrumental variable and all the baseline control variables.

Table 3: *The effect of career diplomats on US exports*

	Log US exports					
	(1)	(2)	(3)	(4)	(5)	(6)
Sample:	Full	Career	Pol. App	Career		
Estimation:	OLS	OLS	OLS	OLS	OLS	2SLS
Ambassadorial vacancy	0	-0.020	-0.004	-0.015	-0.014	-0.128
	(0.006)	(0.004)***	(0.006)	(0.005)***	(0.004)***	(0.057)**
Vacancy × *Career*	-0.021					
	(0.008)***					
Career	-0.022					
	(0.015)					
F-statistic on instrument						
New President, 5 months						61.15
Controls						
Baseline controls	Yes	Yes	Yes	Yes	No	Yes
Politics x Instrument						Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Month fixed effects				Yes		
Country FE x Year FE					Yes	
R^2	0.93	0.91	0.96	0.91	0.96	0.96
Observations	73583	52099	21484	52099	52099	52099
Countries	172	171	128	171	171	171

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via OLS and 2SLS. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. Columns 2, 4-6 are limited to a sample of career diplomats. Column 3 is limited to a sample of politically appointed diplomats. All specifications control for a set of baseline controls, country fixed effects, year fixed effects, and a constant. Baseline controls include: Log GDP per capita of the partner country c, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States. Columns 4 and 5 control for month fixed effects and country *times* year fixed effects, respectively. Column 6 reports estimation via 2SLS. The instrument (Z) is equal to 1 for the first 5 months of a "new" President's (first) term in office. This column also controls for a vector of political variables interacted with the Z. "Politics" includes: an indicator variables (0=Democrat, 1=Republican) for the President's party, majority party in the US House of Representatives and majority party in the US Senate.

Table 4: *The mediating effect of partner country characteristics on US exports*

	Log US exports				
	(1)	(2)	(3)	(4)	(5)
Explanation:	Trade agreements		Foreign policy alignment		Income
Ambassadorial vacancy	-0.015	-0.028	-0.022	-0.021	-0.062
	(0.004)***	(0.010)***	(0.008)***	(0.005)***	(0.022)***
Vacancy x RTA participant indicator	0				
	(0.000)				
Vacancy x GATT/WTO participant indicator		0.019			
		(0.011)*			
Vacancy x UNGA voting similarity score			0.022		
			(0.015)		
Vacancy x US ally indicator				0.020	
				(0.007)***	
Vacancy x Log GDPPC					0.006
					(0.003)**
Baseline controls	Yes	Yes	Yes	Yes	Yes
Country and year fixed effects	Yes	Yes	Yes	Yes	Yes
R^2	0.93	0.93	0.93	0.93	0.93
Observations	73955	73955	73955	73955	73955
Countries	172	172	172	172	172

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via OLS. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for country fixed effects, year fixed effects, baseline controls, and a constant. These coefficients are not reported.

Table 5: *Untangling channels*

	Career diplomat	Log US exports
	(1)	(2)
Sample:	Full	Career
	OLS	2SLS
Ambassadorial vacancy		-0.936
		(0.431)**
Vacancy x Log GDPPC		0.1
		(0.050)**
Vacancy x US ally		-0.089
		(0.082)
Vacancy x GATT/WTO participant		0.081
		(0.118)
Non-instrumented		
Log GDPPC	-0.156	0.283
	(0.040)***	(0.057)***
US ally	-0.135	-0.027
	(0.060)**	(0.030)
UNGA voting similarity score	0.033	0.006
	(0.110)	(0.088)
RTA participant	-0.002	0.005
	(0.002)	(0.001)***
GATT/WTO participant	0.072	0.071
	(0.035)**	(0.048)*
F-statistics on instruments		
New President, 5 months (Z)		30.82
Z x Log GDDPC		29.72
Z x Ally		12.74
Z x GATT		19.79
Country and Year fixed effects	Yes	Yes
R^2	0.45	0.90
Observations	73583	52099
Countries	172	171

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for country fixed effects, year fixed effects, baseline controls, and a constant. These coefficients are not reported.

Table 6: *The effect of ambassadorial vacancies on US exports as governance in partner countries vary*

	Log US exports			
	(1)	(2)	(3)	(4)
Ambassadorial vacancy	-0.031	-0.032	-0.039	-0.039
	(0.009)***	(0.008)***	(0.012)***	(0.009)***
Vacancy x Bureaucratic quality	0.007	0.008		
	(0.003)**	(0.004)**		
Vacancy x Control of corruption			0.008	0.009
			(0.004)**	(0.003)***
Bureaucratic quality	0.017	0.007		
	(0.013)	(0.008)		
Control of corruption			0.002	-0.007
			(0.010)	(0.006)
Baseline controls	Yes	Yes	Yes	Yes
Country fixed effects	Yes		Yes	
Year fixed effects	Yes		Yes	
Country x Year fixed effects		Yes		Yes
R^2	0.95	0.97	0.95	0.97
Observations	40887	40887	40887	40887
Countries	129	129	129	129

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for country fixed effects, year fixed effects, baseline controls, and a constant. These coefficients are not reported. Bureaucratic quality varies across countries and at the monthly level. It is an index ranging from 0 to 4, where a higher value corresponds to a higher quality (competence) of the national bureaucracy. Control of corruption varies across countries and at the monthly level. It is an index ranging from 0 to 6, where a higher value corresponds to lower levels of corruption.

Appendix A: Data

Table A1: *Sample of US trade partners*

Afghanistan	Congo, Rep.	India	Morocco	Somalia
Albania	Costa Rica	Indonesia	Mozambique	South Africa
Algeria	Cote d'Ivoire	Iran	Namibia	Spain
Angola	Croatia	Iraq	Nepal	Sri Lanka
Antigua and Barbuda	Cyprus	Ireland	Netherlands	Sudan
Argentina	Czech Rep.	Israel	New Zealand	Suriname
Armenia	Denmark	Italy	Nicaragua	Swaziland
Australia	Djibouti	Jamaica	Niger	Sweden
Austria	Dominica	Japan	Nigeria	Switzerland
Azerbaijan	Dominican Rep.	Jordan	Norway	Syria
Bahamas	Ecuador	Kazakhstan	Oman	Tajikistan
Bahrain	Egypt	Kenya	Pakistan	Tanzania
Bangladesh	El Salvador	Kiribati	Panama	Thailand
Barbados	Equatorial Guinea	Korea	Papua New Guinea	Togo
Belarus	Eritrea	Kuwait	Paraguay	Tonga
Belize	Estonia	Kyrgyzstan	Peru	Trinidad and Tobago
Benin	Ethiopia	Laos	Philippines	Tunisia
Bolivia	Fiji	Latvia	Poland	Turkey
Bosnia and Herzegovina	Finland	Lebanon	Portugal	Turkmenistan
Botswana	France	Lesotho	Qatar	Uganda
Brazil	Gabon	Liberia	Romania	Ukraine
Brunei	Gambia	Libya	Russia	United Arab Emirates
Bulgaria	Georgia	Lithuania	Rwanda	United Kingdom
Burkina Faso	Germany	Macedonia	Saint Kitts and Nevis	Uruguay
Burundi	Ghana	Madagascar	Saint Lucia	Uzbekistan
Cambodia	Greece	Malawi	Saint Vincent and the Grenadines	Vanuatu
Cameroon	Grenada	Malaysia	Sao Tome and Principe	Venezuela
Canada	Guatemala	Maldives	Saudi Arabia	Vietnam
Cape Verde	Guinea	Mali	Senegal	Yemen
Chad	Guinea-Bissau	Malta	Seychelles	Yugoslavia
Chile	Guyana	Mauritania	Sierra Leone	Zambia
China	Haiti	Mauritius	Singapore	Zimbabwe
Colombia	Honduras	Mexico	Slovakia	
Comoros	Hungary	Moldova	Slovenia	
Congo, DRC	Iceland	Mongolia	Solomon Islands	

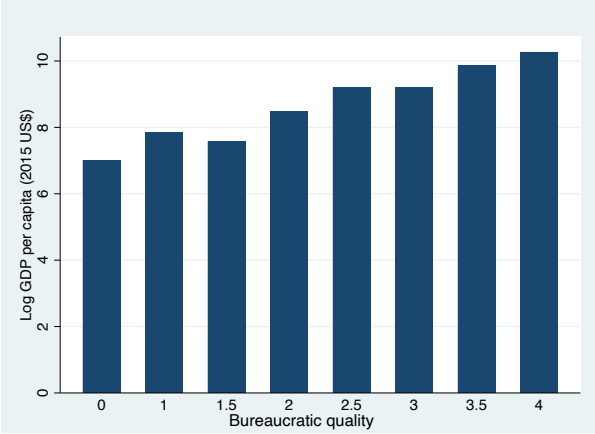
Table A2: *Summary statistics*

Variable	Obs	Mean	Std. Dev	Min	Max
Total trade	69134	1176.19	4298.50	0.02	60739.97
US exports	73955	441.27	1663.19	0.00	27415.31
US imports	69134	704.79	2695.35	0.00	42443.21
Log total trade	69134	2.10	0.94	0.01	4.78
Log US exports	73955	1.68	0.93	0.00	4.44
Log US imports	69134	1.76	1.01	0	4.63
Vacancy	73955	0.22	0.41	0.00	1.00
Country characteristics					
Log distance	73955	8.58	0.50	6.98	9.26
Border	73955	0.02	0.15	0.00	1.00
Common colonizer	73955	0.02	0.12	0.00	1.00
Common language	73955	0.34	0.47	0.00	1.00
Log GDP per capita of c	73955	8.47	1.30	5.20	11.82
UN voting similarity	73955	0.37	0.24	0.00	1.00
US ally	73955	0.35	0.48	0.00	1.00
Ambassador characteristics					
Female	73955	0.15	0.35	0.00	1.00
Ambassador age	72244	55.11	6.78	32.00	85.00
Years of experience	73955	2.83	2.75	0.01	23.47
Political appointee	73955	0.29	0.45	0.00	1.00

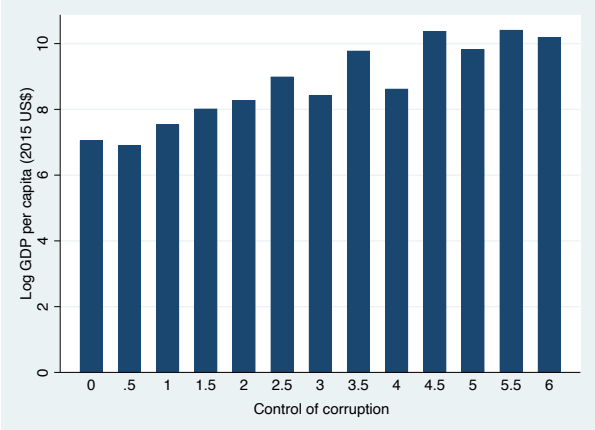
Notes: Trade volumes (total, exports, and imports) in millions of 2015 US dollars.

Figure: *Per capita income and governance*

A1: *Bureaucratic quality*

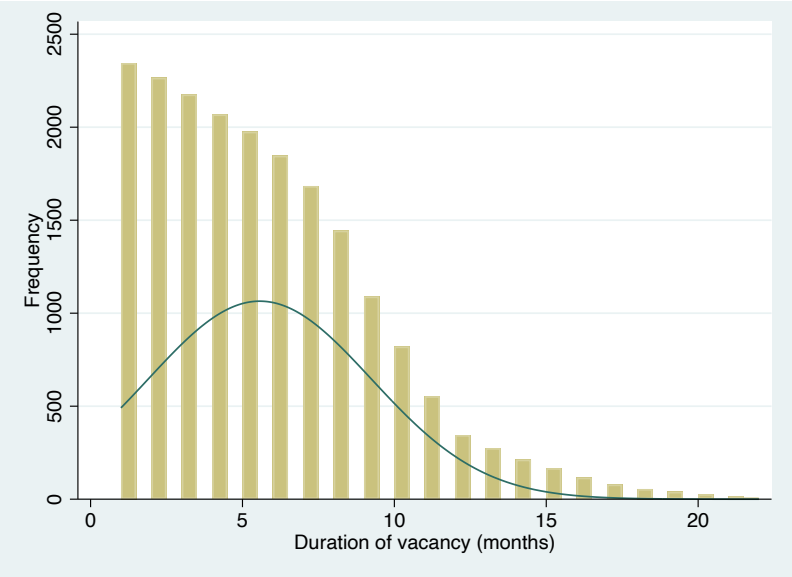


A2: *Control of corruption*



Notes: A higher value of control of corruption and bureaucratic quality implies a higher quality of governance.

Figure A3: *Length of ambassadorial vacancies*



Appendix B: Additional Tables

Table B1: *The vacancy effect, with additional controls*

	Log US exports					
	(1)	(2)	(3)	(4)	(5)	(6))
			Month FE		Lagged exports	
Method of estimation:	OLS	OLS	OLS	PPML	OLS	OLS
Ambassadorial vacancy	-0.015	-0.017	-0.010	-0.010	-0.007	-0.004
	(0.004)***	(0.004)***	(0.004)**	(0.002)***	(0.002)***	(0.002)**
Gender of exiting ambassador	-0.002					
(female=1, male=0)	(0.012)					
Career years of	-0.001					
exiting ambassador	(0.002)					
Age of exiting ambassador	0					
	(0.001)					
POLITY		0.001				
		(0.002)				
Log US exports in t-1					0.606	0.309
					(0.024)***	(0.011)***
Log US exports in t-2						0.177
						(0.006)***
Log US exports in t-3						0.121
						(0.007)***
Log US exports in t-4						0.107
						(0.007)***
Log US exports in t-5						0.121
						(0.005)***
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Month fixed effects			Yes			
R^2	0.93	0.93	0.93	0.93	0.96	0.96
Observations	72244	65940	73955	73955	72700	70341
Countries	172	152	172	172	172	171

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via OLS (columns 1-3, 6, 7) and poisson pseudo maximum likelihood (in column 4). Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for a set of baseline controls, country fixed effects, year fixed effects, and a constant. Baseline controls include: Log GDP per capita of the partner country j, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States.

Table B2: *The vacancy effect, across different geographic regions*

	Log US exports						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Excluded region:	N. America	S. America	Europe	Africa	Asia	Oceania	
Vacancy	-0.016	-0.015	-0.016	-0.011	-0.013	-0.015	-0.065
	(0.004)***	(0.004)***	(0.004)***	(0.003)***	(0.004)***	(0.004)***	(0.013)***
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	No
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region fixed effects							Yes
Observations	64739	67054	58542	51625	57081	71358	73955
R^2	0.93	0.93	0.93	0.93	0.94	0.93	0.46
Countries	152	160	133	120	132	164	172

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via OLS with robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for a set of baseline controls, country fixed effects, year fixed effects, and a constant. Baseline controls include: Log GDP per capita of the partner country j, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States. Columns 1-6 exclude observations from North America, South America, Europe, Africa, Asia, and Oceania respectively. Column 7 does not drop observations from any region.

Table B3: *The vacancy effect, across trimmed samples of US export volumes*

	Log US exports			
Sample:	90/10	75/25	Bottom 50 percent	Top 50 percent
	(1)	(2)	(3)	(4)
Ambassadorial vacancy	-0.012	-0.008	-0.012	-0.01
	(0.004)***	(0.004)**	(0.004)***	(0.003)***
Baseline controls	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
R^2	0.88	0.75	0.72	0.92
Observations	59187	36974	36977	36977
Countries	169	160	153	149

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via OLS with robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for a set of baseline controls, country fixed effects, year fixed effects, and a constant. Baseline controls include: Log GDP per capita of the partner country j, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States. Column 1 excludes observations from the top and bottom decile (10%) of US export volumes. Column 2 excludes observations from the top and bottom quartile (25%) of US export volumes. Column 3 includes observations from the bottom 50 percent of US export volumes. Column 4 includes observations form the top 50 percent of US export volumes.

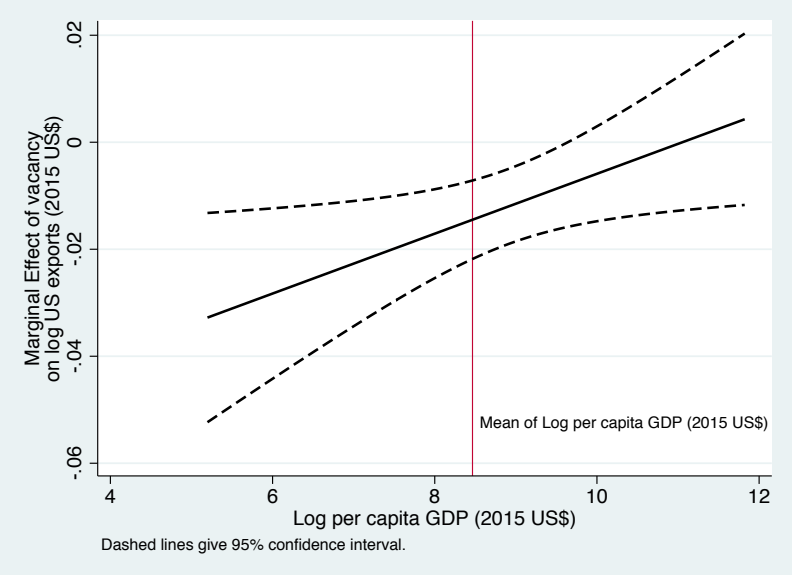
Table B4: *The vacancy effect, across samples that exclude country membership in trade agreements*

	Log US exports		
Excluded membership in:	RTA	US FTA	GATT/WTO
	(1)	(2)	(3)
Ambassadorial vacancy	-0.015	-0.015	-0.026
	(0.004)***	(0.004)***	(0.009)***
Baseline controls	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
R^2	0.92	0.93	0.87
Observations	71423	72007	20456
Countries	172	172	102

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Estimation via OLS with robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for a set of baseline controls, country fixed effects, year fixed effects, and a constant. Baseline controls include: Log GDP per capita of the partner country c, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States. Column 1 excludes observations from countries that members in a regional trade agreement (RTA) with the United States. Column 2 excludes observations from countries that are members in a bilateral free trade agreement (FTA) with the United States. Column 3 excludes observations from countries that are members in the GATT/WTO.

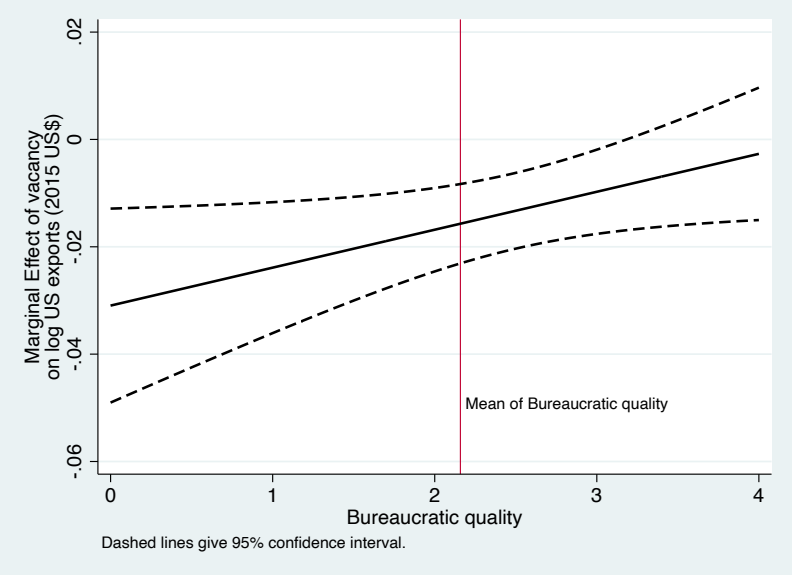
Appendix C: Additional Figures

Figure C1: *Marginal effect of an ambassadorial vacancy on US exports as per capita income in country c varies*



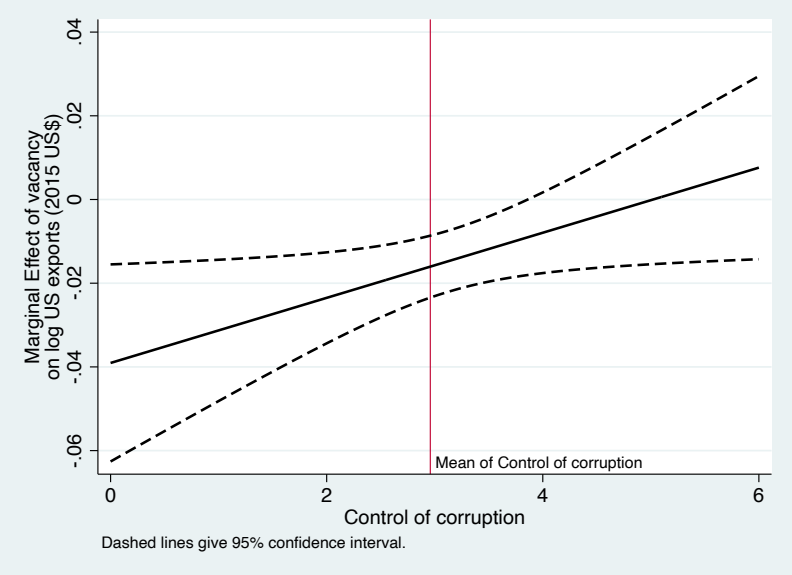
Note: Marginal effect plot associated with Table 5, column 5.

Figure C2: *Marginal effect of an ambassadorial vacancy on US exports as bureaucratic quality in country c varies*



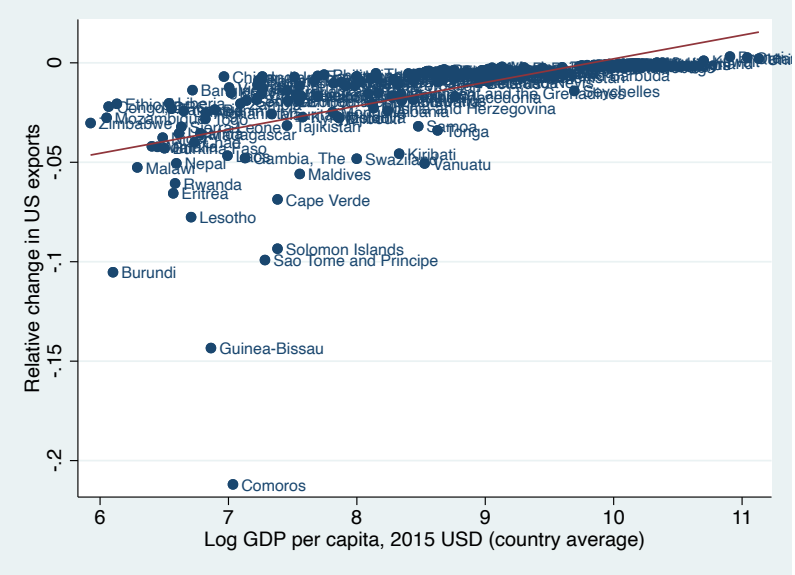
Note: Marginal effect plot associated with Table 6, column 1. In Figure C2 a higher value of the governance indicator (on the axis) implies a higher overall quality of bureaucratic quality.

Figure C3: *Marginal effect of an ambassadorial vacancy on US exports as control of corruption in country c varies*



Note: Marginal effect plot associated with Table 6, column 3. In Figure C3 a higher value of the governance indicator (on the axis) implies a greater control of corruption in a country.

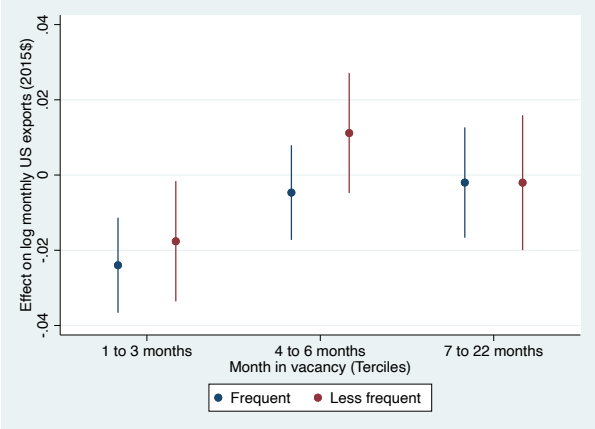
Figure C4: *Vacancy effect relative to country exports with a "sitting" ambassador, as country per capita income varies*



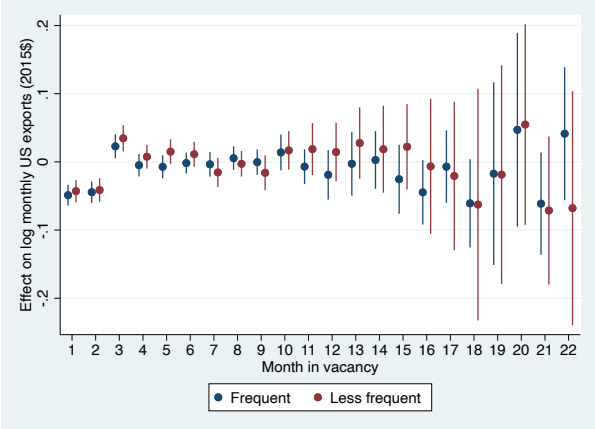
Note: In Figure C4, the y-axis is each country's vacancy effect relative to its level of US exports with a sitting US ambassador (to that country). A lower value implies a greater decline in US exports (relative to its level of US exports with a sitting ambassador). Country estimates derived from Table 4, column 5.

Figure C5: *The duration of ambassadorial vacancies and US exports with frequent and less frequent vacancies*:

a: *By terciles of vacancy length*



b: *By each month of a vacancy*



Notes: The figures plot the coefficients and corresponding 95 percent confidence interval for the vacancy duration indicators $VACANCY_{\mathbf{j},cmy}$ in equation 2 corresponding to terciles (figure 4a) and months (figure 4b) for vacancy duration across countries that frequently (greater than sample median) and less frequently experience ambassadorial vacancies. Each specification controls for calendar baseline controls, and country and year fixed effects. These coefficients are not plotted. Baseline controls include: Log GDP per capita of the partner country c, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States.

Appendix D: Estimates at the product level

An attractive feature of studying the United States is the availability of monthly bilateral trade volumes at a more fine-grained product (industry) level from the Census Bureau.[38] As an extension to our main analysis, Table D1 presents evidence that ambassadorial vacancies reduce US exports across 265 product categories (corresponding to 3-digit SITC industry classifications).

Column 1 in Table D1 estimates our main reduced form specification with baseline controls (that vary at the country-year level) and country and year fixed effects. The coefficient estimate implies that, on average, foreign sales of US products (at the 3-digit industry level) decline by about 1 percentage point during each month of an ambassadorial vacancy. Since the baseline controls vary at the country and year level, they can be subsumed with country $\times$ year fixed effects. Doing so in column 2, heightens the vacancy effect by about 40 percent relative to the estimated effect in column 1.

In columns 3 and 4, we estimate a more saturated - and arguably more conservative - specification that controls for product specific effects that vary across each country and year with a fixed effect for each country $\times$ year $\times$ product category. In column 4, we instrument for an ambassadorial vacancy using the first 5 months of a new President's inaugural term in office. In each specification, the vacancy effect remains negative and precisely estimated.

We verified that our findings at the product level hold in specifications across samples that exclude potential outliers that vary across regions, the volume of trade, and membership in trade institutions; control for lagged volumes of each product's monthly exports (up to 5 periods); and account for trends in monthly exports prior to and after a vacancy corresponding to equation (2). These additional results are available upon request.

[38] This data is available from 1996 onwards.

Table D1: *Ambassadorial vacancies and US exports at the product level*

	Log US exports			
	(1)	(2)	(3)	(4)
Estimation:	OLS	OLS	OLS	2SLS
Ambassadorial vacancy	-0.010	-0.014	-0.014	-0.107
	(0.002)***	(0.003)***	(0.003)***	(0.043)**
Baseline controls	Yes	Yes	Yes	Yes
Fixed effects for				
Country and year	Yes			
Country x Year		Yes		
Country x Year x Industry			Yes	Yes
F-statistic on instrument				
New President (5 month)				9839.72
R^2	0.33	0.34	0.77	.
Observations	6080856	6670884	6670884	6670884

Notes: The unit of observation is a product p (at the 3-digit SITC level) in country c in month m in year y, where y ranges from 1996 to 2014. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. In column 1, the baseline controls include: Log GDP per capita of the partner country c, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States. In column 4, an ambassadorial vacancy is instrumented with a dummy variable equal to 1 for the first 5 months of a new President's term and zero otherwise.

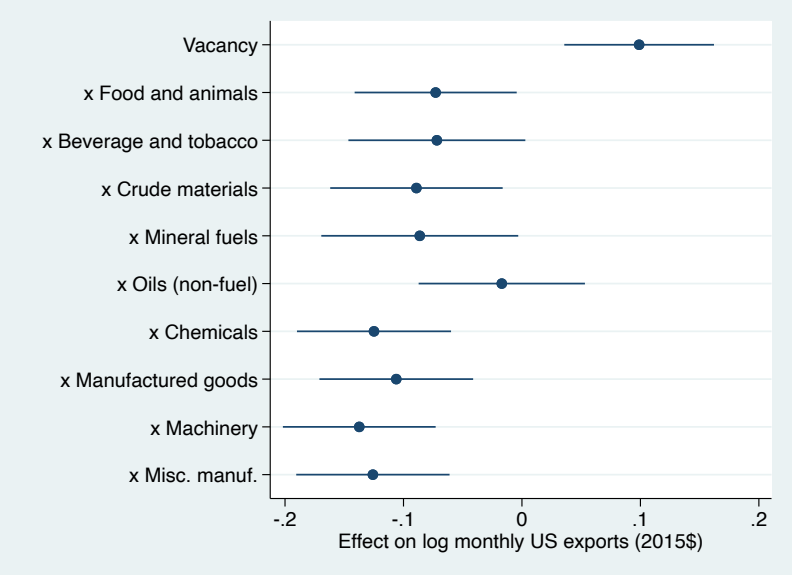
We also explored several heterogenous effects. We first probed any possible differences across homogenous and differentiated products using Rauch's (2007) categorization of trade data. Our analysis reveals that an ambassadorial vacancy is associated with a statistically significant reduction in US exports of both homogenous and differentiated products, but the estimated effect is around 80 percent larger in magnitude for differentiated products (see Table D2). We also examined possible differences between consumer and intermediate goods. Here, we interacted $VACANCY_{cmt}$ with a fixed effect for each industry (at the 1-digit SITC classification) associated with the corresponding product (see Figure D1). This exercise shows that an ambassadorial vacancy contributes to a statistically significant reduction in US exports of products in the chemicals, machinery, and miscellaneous manufacturers industries. These products tend to be intermediate goods.

Table D2: *The vacancy effect at the 3-digit product level, across differentiated and homogeneous products*

	Log US exports					
	Differentiated products			Homogeneous products		
	(1)	(2)	(3)	(4)	(5)	(6)
Ambassadorial vacancy	-0.013	-0.018	-0.018	-0.01	-0.01	-0.01
	(0.003)***	(0.004)***	(0.004)***	(0.004)**	(0.004)**	(0.004)**
Baseline controls	Yes			Yes		
Country and Year fixed effects	Yes			Yes		
Country x Year fixed effects		Yes			Yes	
Country x Year x Product fixed effects			Yes			Yes
R^2	0.42	0.44	0.77	0.29	0.3	0.75
Observations	3465570	3817062	3817062	2615286	2853822	2853822

Notes: The unit of observation is a product p (at the 3-digit SITC level) in country c in month m in year y, where y ranges from 1996 to 2014. Estimation via OLS with robust standard errors, clustered by product level reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. In columns 1-3, the sample is restricted to differentiated products based on Rauch's (2007) classification. In columns 4-6, the sample is restricted to homogeneous products based on Rauch's (2007) classification. Baseline controls include: Log GDP per capita of the partner country c, an indicator variable for US ally, UN General Assembly voting "similarity" score with the United States, membership in GATT/WTO, membership in a regional or bilateral trade agreement with the United States. Column 1 excludes observations from countries that members in a regional trade agreement (RTA) with the United States.

Figure D1: *Marginal effects of ambassadorial vacancies across products (1-digit industry classifications).*



Note: Coefficient estimates with corresponding 95 percent confidence interval.

Appendix E: Evaluating other channels

In this Appendix, we evaluate and discount two other plausible channels that may underlie the vacancy effect identified in this paper: coercive diplomacy and domestic politics.

Coercive diplomacy. In some instances, US diplomatic relations are coercive in nature; which in turn may affect US bilateral trade. Berger et al. (2013), for example, provide compelling evidence that governments installed (and supported) by interventions initiated by US Central Intelligence Agency (CIA) during the Cold War shifted trade relations in the United States favor. They argue CIA interventions comprised a form of commercial imperialism through which "intervened" countries increased their imports of US products, with no effect on exports to the United States. Since developing countries were the primary targets of CIA interventions, it is plausible that ambassadorial vacancies in countries with CIA-installed governments may contribute to a contraction in US exports. We evaluate this possibility by interacting $VACANCY_{cmy}$ with a dummy variable equal to one for countries that are governed by regimes installed by the CIA (using data from Berger et al. 2013). If an ambassadorial vacancy weakens the (coercive) effect associated with CIA interventions, the coefficient on $VACANCY \times$ *CIA intervention* should exhibit a negative effect on US exports. This does not seem to be the case (see Table E1, column 1), as both the interaction and main effects associated with CIA interventions are statistically indistinguishable from zero. The vacancy effect remains negative and precisely estimated.

We further examine the effect of US sanctions as another plausible manifestation of coercive US diplomacy. Here, we use information from the Global Sanctions Database (Felbermayr et al. 2020) to construct a monthly level for the imposition of US sanctions against a country c (i.e., 1 if a sanction is imposed on country c in year y and month m, and zero otherwise). As expected (see Table E1, column 2), the imposition of US sanctions decreases US exports to that country (coefficient = -0.063), but ambassadorial vacancies do not exhibit a differential effect in sanctioned countries (compared to non-sanctioned countries).[39] In this specification, the vacancy effect remains negative and statistically significant. Together, these findings suggest that isolating the effect of coercive diplomacy – as measured with CIA interventions and the imposition of sanctions – does not comprise a plausible channel through which ambassadorial vacancies affect US exports.

[39]These inferences hold when we focus on trade-related sanctions only.

Domestic politics. Given the US President's role in appointing ambassadors, it is plausible that his administration's broader foreign economic policy preferences may affect the vacancy effect. For instance, administrations led by a Republican President may be more inclined to push more commercially oriented policies abroad (Milner and Tingley 2010). This suggests that Presidential transitions (and any associated partisan effects) may influence the vacancy effect. We explore this possibility flexibly by interacting $VACANCY_{cmy}$ with several measures of Presidential transitions: any partisan transition from a Democratic President to a Republican one and vice-versa (e.g., Lyndon B. Johnson to Richard Nixon, Gerald Ford to Jimmy Carter); the specific partisan transition from a Republican to Democratic President (e.g., George W. Bush to Barack Obama); a transition to a new President, irrespective of partisan affiliation (e.g., Ronald Reagan to George H.W. Bush, Bill Clinton to George W. Bush).[40] These specifications (see Table E1, columns 3-5) show the interaction effects to be statistically indistinguishable from zero and suggest that ambassadorial vacancies do not exhibit a differential effect across Presidential transitions.

Alternatively, it is plausible that domestic politics in the partner country may influence the vacancy effect. In particular, we investigate the possibility that lower per capita income in country c may be associated with or even proxy for political instability in c; whereby ambassadorial vacancies in more unstable political environments could create economic uncertainty, which might lead to a contraction in trade. To evaluate this conjecture, we construct two measures of political (in)stability. The first compiles detailed information on coup events from Peyton et al. 2020 to construct a monthly measure of coup incidence (across countries). We then create a dummy variable, *Coup (last 12 months)*, equal to 1 if a country experienced a coup in the past 12 months and zero otherwise. Our second measure uses information from the POLITY IV data set to characterize episodes of "interregnum" (anarchy) and "transition" as periods of *Government collapse*.[41] We then interact these two measures of political (in)stability with $VACANCY_{cmy}$. If political instability is a channel through which an ambassadorial vacancy reduces US exports, then these interaction effects should be negative. In instances where a partner country has experienced a recent coup, US exports tend to be lower but surprisingly vacancies seem to offset this effect (see Table E1, column 6). More generally, however, US exports do not seem to be affected in countries experiencing outright government collapse (see Table E1, column 7). Across both specifications, the vacancy effect remains negative and statistically significant. On balance, these

[40] These measures vary at the annual level and are subsumed with year fixed effects.

[41] *Government collapse* is equal 1 if a country c in year y is experiencing interregnum or transition, and zero otherwise.

results suggest that episodes of political instability do not seem to affect the overall impact of US ambassadorial vacancies on US export performance.

Table E1: *Evaluating other channels*

	Log US exports						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Explanation:	Coercive diplomacy		US Presidential transitions			Political instability	
Ambassadorial vacancy	-0.016	-0.012	-0.016	-0.015	-0.018	-0.016	-0.014
	(0.004)***	(0.003)***	(0.005)***	(0.004)***	(0.005)***	(0.004)***	(0.004)***
Vacancy x CIA intervention	0.006						
	(0.008)						
Vacancy x US sanction		-0.018					
		(0.015)					
Vacancy x Partisan transition			0.01				
			(0.013)				
Vacancy x Partisan transition				0.01			
from Republican to Democrat				(0.017)			
Vacancy x New President					0.012		
					(0.011)		
Vacancy x Coup (last 12 months)						0.045	
						(0.026)*	
Vacancy x Gov't collapse							-0.038
							(0.028)
CIA intervention	-0.012						
	(0.045)						
US sanction		-0.063					
		(0.022)***					
Coup (last 12 months)						-0.041	
						(0.016)**	
Government collapse							0.011
							(0.043)
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country and year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Observations	73755	73755	73755	73755	73755	73755	73755
Countries	172	172	172	172	172	172	172

Notes: The unit of observation is a country c in month m in year y, where y ranges from 1963 to 2014. Robust standard errors, clustered by country reported in parentheses. *, **, *** = significant at 10, 5, and 1 percent respectively. All specifications control for country fixed effects, year fixed effects, baseline controls, and a constant. These coefficients are not reported.