

Commercial Imperialism? Political Influence and Trade During the Cold War*

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ABSTRACT: We exploit the recent declassification of CIA documents and examine whether there is evidence of US power being used to influence countries' decisions regarding international trade. We measure US influence using a newly constructed annual panel of CIA interventions that were successful at installing and supporting leaders during the Cold War. Our presumption is that the US had greater influence over foreign leaders that were installed and backed by the CIA. We show that following successful CIA interventions there was an increase in foreign-country imports from the US, but there was no similar increase in foreign-country exports to the US. Further, the increase in US exports was concentrated in industries which the US had a comparative *disadvantage* in producing, not a comparative advantage. This is consistent with US influence being used to create a larger foreign market for American products. Our analysis is able to rule out decreased bilateral trade costs, changing political ideology, and an increased supply of US loans and grants as alternative explanations. We provide evidence that the increase in US exports arose through direct purchases of US products by foreign governments.

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1. Introduction

The theoretical possibility that political influence and power play an important role in international trade has long been recognized.¹ In recent years, a number of studies have also empirically confirmed the importance of influence and power in the international arena.² This study adds to this literature by providing evidence that during the Cold War, US influence over leaders installed and supported by the CIA was used by the US government to create a larger foreign market for US products.

Our analysis relies on the use of recently declassified CIA documents to generate a country- and year-specific measure of the influence of the US government over foreign countries. We identify instances where US covert services engaged in interventions that installed and/or supported political leaders in other countries. Our presumption is that the US government had greater influence over foreign leaders that were installed and supported by the CIA. Examining the relationship between US influence and annual bilateral trade, we find that US influence raised the share of total imports that the intervened country purchased from the US. We find no change in the total value of goods imported from the world, i.e. of trade creation. Instead, increased US influence caused a shift away from the purchase of products from non-US countries and towards products from the US. Despite the robust finding of increased imports from the US, intervened-country exports to the US did not increase.

These findings are consistent with US political influence being used to create a larger market for US products in the intervened country. Although we are unable to identify the exact impetus behind the increase in US exports, it most likely arose from US firms that stood to gain from increased overseas sales, and through standard political economy mechanisms were able to lobby the US government.

To further test the US influence hypothesis, we examine differences in the effects of successful CIA interventions in autocratic and democratic regimes. Existing theory and evidence suggests that US influence over foreign governments should have been greater in autocratic regimes, where leaders are less accountable to the general population and have greater freedom to choose policies.

¹See for example Hirschman (1945), Galtung (1971), Antràs and Padró-i-Miquel (2008), and Aidt and Albornoz (2010).

²Amongst others, see Yeats (1990), Gowa and Mansfield (1993), Mansfield, Milner, and Rosendorff (2002), Kuziemko and Werker (2006), Dreher and Jensen (2007), and Kilby (2009). Evidence from historical perspectives are provided by Findlay and O'Rourke (2007), Mitchener and Weidenmier (2008), and Head, Mayer, and Ries (2010).

We find that, consistent with the political influence hypothesis, successful CIA interventions only increased the share of imports from the US in autocratic regimes, and had no effect in democratic regimes.

Although our baseline estimating equations control for country-specific time-invariant factors (with country fixed effects) and time-specific country-invariant factors (with time-period fixed effects), it is possible that the estimates are biased by omitted factors that simultaneously vary by time and country. For example, successful CIA interventions may have been more likely following a temporary decline in imports from the US. This form of selection will result in inflated estimates of the effect of US influence on imports from the US. We undertake a number of strategies to control for this. We include controls for pre-trends in the dependent variable and for pre-intervention fixed effects. We also control for a host of observable factors that are likely determinants of pre-intervention dips in imports and correlated with the onset of successful CIA interventions. The results remain robust to the strategies undertaken to address the selection of CIA interventions.

Even taking the correlations as causal, there are many alternative interpretations for the estimated impacts. In addition to the political influence explanation, there are three leading alternative interpretations. The first is that successful interventions decreased bilateral trading costs between the US and the intervened country, and this caused an asymmetric increase in trade flows. The second is that the newly installed and/or supported leaders were ideologically more aligned with Western capitalist countries. This caused the intervened countries to import more from all Western countries, not just the US. The third explanation is that following a successful intervention, US foreign grants and loans increased, which caused an increase in the purchase of US products.

We test for the trade costs explanation by examining the effects of CIA interventions on imports from the US in different industries. We show that the increase in imports from the US was greatest for goods which the US had a relative comparative *disadvantage* in producing. That is, following successful interventions, the new goods that were shipped from the US to the intervened country were products that US firms were relatively uncompetitive in producing. This pattern is inconsistent with decreasing trade costs being the source of increased imports from the US. Standard models of international trade do not predict greater specialization in comparative disadvantage industries. Instead, integration should cause each country to specialize

(and export) more in industries in which they have a comparative advantage. However, the finding is consistent with US influence being used to create a larger market for US products that producers would otherwise have difficulty selling internationally.³

We then turn to the political ideology explanation. The increase in imports from the US may have arisen because the newly installed leaders were more pro-Western and pro-capitalist and therefore they imported more from all Western countries, including the US. To test this explanation, we examine the effects of successful interventions on imports from all countries, not just from the US. We find no evidence that US interventions caused an increase in imports from countries that were ideologically aligned with the US.

Last, we turn to the increased US loans and grants explanation. We test directly whether US economic aid, military aid, food aid, or Export-Import Bank loans increased following a successful intervention. We find that interventions were followed by an increase in economic aid, food aid, and Export-Import Bank loans. However, we also find that these only account for approximately 20% of the total impact of CIA interventions on imports from the US.

Having examined alternative explanations, we then turn to mechanisms and provide evidence that the increased imports of US products arose through direct government purchases. We find that the effect of successful interventions on the purchase of US products is increasing in the government's share of GDP. For the countries in the sample with the smallest government share, we find that the effect of interventions on US imports is close to zero. This suggests that essentially all of the effect can be explained by government purchases of US products. We also show that the increase in US imports was greatest in industries in which government purchases and government imports tend to be high. Examining the timing of impacts, we find that successful interventions immediately led to a surge in imports. This provides further evidence for government purchases, since these could have responded very quickly to US influence. We also test for other channels, such as tariff changes or foreign direct investment, but find no evidence that these played an important role.

Our emphasis on empirically examining the impacts of CIA interventions links our study to others that also empirically examine the history of the CIA during the Cold War. Dube, Kaplan, and Naidu (2011) examine the stock prices of US companies in Iran, Guatemala, Cuba, and Chile

³As discussed, the US government's desire to increase the overseas sale of these products likely arose through firms' lobbying within the US.

before and after the CIA-authorized plans for covert coups. They find that the stock returns of companies that were both connected to the CIA and stood to gain from the coups increased immediately after the authorizations. These findings provide evidence that the top-secret plans were leaked to investors. The focus of our analysis nicely complements the emphasis of Dube *et al.* (2011). Since the authors are interested in the effects of top-secret information flows (and not of the interventions themselves), they do not include the period of the actual intervention in their analysis. In contrast, our analysis looks at the consequences of the interventions after they are actually carried out.

Most closely related is Berger, Corvalan, Easterly, and Satyanath (2010), who use lower frequency data at five year intervals to examine the effect of interventions on democracy. They find that CIA and KGB interventions have a negative effect on subsequent democracy, a result that dovetails nicely with our finding that US influence was strongest in autocratic regimes. Following an intervention, the US would have had little incentive to promote democracy, since this would have made influence less effective.

Our analysis also extends previous theoretical analyses of the interplay between political influence and international trade. The hypothesis that influence and power plays a role in international trade dates back to at least Hirschman (1945). More recently, the theoretical contribution of Antràs and Padró-i-Miquel (2008) examines the welfare impacts when political influence can affect trade and trade policies. Our findings also complement existing studies that attempt to empirically estimate the effects of political influence on trade flows. An example is Yeats' (1990) analysis, showing that among African countries, former colonies pay a 20–30% premium on the price of imported steel when importing from their former colonizer.⁴

This paper also relates to a broader literature in political science on the political economy of trade. Verdier (1998), Mansfield, Milner, and Rosendorff (2000), Russett and Oneal (2001), Mansfield *et al.* (2002), Frye and Mansfield (2003), Kono (2006) and Mansfield, Milner, and Pevehouse (2008), among others, have studied the effect of countries' regime type on trade and trade policy. Other studies examining the relationship between political economy and trade include Lohmann and O'Halloran (1994) on divided government and trade policy; Gowa and

⁴Also related are studies that provide evidence for power and influence playing a role in other international settings. For example, Dreher and Jensen (2007) show that IMF conditionality is correlated with whether countries vote in-line with the US in the UN General Assembly. Similarly, Kilby (2009) shows that the World Bank's structural adjustment conditions are less stringent for countries whose voting in the UN is more aligned with the US. Kuziemko and Werker (2006) show that when countries have a seat on the UN security council they receive more foreign aid from the US.

Mansfield (1993) on alliances and trade; Barbieri and Levy (1999) and Anderton and Carter (2001) on the impact of conflict on trade; Mansfield and Busch (1995), and Henisz and Mansfield (2006) on state and societal determinants of trade; Mansfield and Pevehouse (2000) and Gartzke (2007) on the influence of preferential trading arrangements and trade integration respectively on war; Frye and Mansfield (2004) on electoral timing and trade liberalization; and MacGillivray and Smith (2004) on leadership turnover and trade.

The next section of the paper describes our data and their sources. Section 3 derives our estimating equations and reports our baseline results. We document that successful CIA interventions were followed by increased imports of US goods, no increase in exports to the US, and no increase in total trade. We further show that the increase in imports from the US is found among autocracies only. Sections 4 and 5 then turn to the issues of causality and robustness. In section 6, we test for alternative explanations and show that the findings cannot be explained by decreased trade costs, changing political ideology, or an increase in US loans and grants. In section 7, we turn to specific mechanisms and provide evidence that government purchases play a central role. Section 8 concludes.

2. Data on Successful CIA Interventions

As a source of variation in US influence over a country, we rely on historic episodes where the CIA successfully intervened in the country to either install a new leader or to provide support to an existing leader to help maintain the power of the regime. To identify these episodes, we rely on a number of studies examining the history of the Cold War, much of which is based on recently declassified documents. Using these sources, we have constructed an annual data set of interventions successfully undertaken by the CIA. We also construct analogous measures for successful Soviet KGB interventions, which we use as a control in the analysis. The most heavily used sources include Blum (2004), Weiner (2007), Westad (2005), Yergin (1991), and the Library of Congress' *Country Studies Series* for the CIA interventions, and Andrew and Mitrokhin (2000, 2005) for KGB interventions. Full details of the data construction and sources are reported in a data appendix that will be posted on the authors' web pages upon publication.

We choose to restrict our sample period to the Cold War period, 1947–1989. We do this for two primary reasons. First, the once-covert data used to construct our measure are much more plentiful for the Cold War period. For the post-Cold War era, much of the CIA data remain

classified. This is true in part because only classified CIA documents older than 25 years fall under the Freedom of Information Act, but also because nearly all documents from the Cold War period – even those younger than 25 years – are now publicly available, and have been extensively studied and synthesized by Cold War historians. Once we move beyond 1989 our coding of interventions is based on much less information and therefore is significantly less certain. Second, the Cold War provides a period that is more comparable across years, so that our coefficient estimates are likely stable across the years of our sample. This is less likely to be true once we pool the Cold War and the post-Cold War periods.

Our baseline measure of successful CIA interventions is an indicator variable that equals one, in a country and year, if the CIA either installed a foreign leader or provided covert support for the regime once in power. We label this variable *US influence_{t,c}*. The activities used by the CIA to install and help maintain the power of specific regimes are many and varied. They include the creation and dissemination of (often false) propaganda, usually through radio, television, newspapers and pamphlets. They also included covert political operations, which typically consisted of the provision of funds and expertise for political campaigns. More invasive tactics included the destruction of physical infrastructure and capital, as well as covert paramilitary operations, that included the supply of arms and military equipment, direct involvement in insurgency and counterinsurgency operations, and the coordination of coups and assassinations (Johnson, 1989, 1992).

There are many instances in which the CIA set out to remove an existing leader and install a new leader in power. The CIA-organized coups in Iran in 1953, Guatemala in 1954, and Chile in 1973 are the most well-known examples of such cases. For these interventions, the indicator variable *US influence_{t,c}* takes on the value of one. In other cases, the CIA began to provide support for leaders currently in power. In these cases, the CIA did not engage in activities to install the leader into power, but once in power, at some point, the CIA began to engage in activities to help maintain the power of the regime. Typically, these were covert counter-insurgency operations undertaken by the CIA. We also code as one these cases in which the leader maintains power with the help of the CIA. A good example of this is the CIA's involvement in Haiti. Paul Magloire, François "Papa Doc" Duvalier, and Jean-Claude "Baby Doc" Duvalier, were not installed by the CIA, but they were reliant on CIA support to help maintain their power. As a robustness check, we also create a second more narrowly defined measure that codes as zero interventions where

the CIA successfully undertook activities that propped-up a leader it did not originally install. As we discuss in section 5, the results are robust to the use of this alternative measure.

As a concrete illustration showing the construction of our variable, we use the history of the CIA in Chile as an example. CIA involvement in Chile first occurred in the 1964 Chilean elections, when the CIA provided covert funding and support for the Christian Democratic Party candidate Eduardo Frei Montalvo. Eduardo Frei won the presidential election in 1964, and continued to receive CIA support while he was in power. In the 1970 election, Salvador Allende, a candidate of a coalition of leftist parties, was elected, and remained in power until the CIA orchestrated coup of 1973. After the coup, Augusto Pinochet took power and was backed by the CIA until 1988. Since our indicator for successful CIA interventions, $US\ influence_{t,c}$, equals one in all years in which a leader is installed or supported by the CIA, for Chile the variable equals one from 1964 to 1970 when Eduardo Frei was in power. It equals zero in 1971 and 1972, the years when Salvador Allende was in office (since he was not supported or installed by the CIA). It then equals one from 1973 to 1988, the years when Augusto Pinochet, who was installed and supported by the CIA, was in power.⁵

We examine a sample of 166 countries, which includes all countries for which data are available, except for the United States and the Soviet Union.⁶ Among the 166 countries, 51 were subject to at least one CIA intervention between 1947 and 1989.⁷ In an average year between 1947 and 1989, 25 countries were experiencing a CIA intervention. Among the group of countries that experienced an intervention between 1947 and 1989, the typical country experienced 21 years of interventions.

Examining the total number of successful CIA interventions in each year, we find that there is a steady increase after 1947 until the 1970s, after which the number falls until 1989.⁸ This pattern is consistent with the known history of the CIA. Between 1953 and 1961 covert action increased significantly, with attention focused on political action, particularly support to political figures and political parties. The 1960s witnessed a continued presence of CIA covert activities, although

⁵The onset and offset years of CIA intervention episodes could potentially be coded as zero or one, since these are transition years. We have chosen to code these as one throughout. As we discuss in section 5, none of our results depend on the decision.

⁶Our panel is unbalanced, since countries do not enter the sample until they gain independence. Countries that split or merge are treated as new countries in the data set. A description of how exactly we deal with these cases is provided in the appendix.

⁷Similarly, 25 countries were subject to at least one successful KGB intervention.

⁸The data are reported explicitly in the online appendix.

there was a shift towards greater paramilitary activities. The period from 1964 to 1967 is known to have been the high point of CIA covert activities, with the post-1967 slow-down was brought about, in part, by the 1967 *Ramparts* magazine article that exposed the CIA's funding of national student groups and other private organizations (Leary, 1984). Consistent with this history, our data show a leveling off of covert interventions in the late 1960s until the mid-1970s, after which the number falls. The slight lag in the decline after 1967 results from the persistence of ongoing intervention episodes, since newly installed or newly supported leaders were often supported by the CIA for their remaining tenure.

The map shown in figure 1 reports for each country the fraction of years between 1947 and 1989 for which there was a CIA intervention.⁹ The cross-country distribution of interventions is consistent with the descriptive history of the CIA during the Cold War era. The CIA intervened most heavily in Latin America, but also in a few European countries - namely, Italy and Greece - as well as in a number of countries in Africa, Asia, and the Middle East.

The map also helps to illustrate exactly what our intervention variable captures and what it does not capture. For example, our intervention variable is zero for Angola throughout the period. This is the case despite the heavy and well-known involvement of the CIA in Angola's civil war (e.g. Weissman, 1979). The CIA provided covert support for the anticommunist group Union for the Total Independence of Angola (UNITA). However, the group was never successful at gaining power from the Movimento Popular de Libertação de Angola (MPLA). Because the US-backed UNITA forces never gained control of the government, our variable is not coded as one for Angola, despite clear intervention by the CIA in the country. The example illustrates that our intervention measure is not a measure of all CIA meddling or activities in a country. Rather, it is an indicator of CIA activities that were successful at either installing a new leader or in maintaining the power of an existing leader. Therefore, it should be kept in mind that throughout the paper, when we refer to "CIA interventions", we are referring specifically to interventions by the CIA that were successful at installing or maintaining the power of specific leaders.

Using CIA covert activities to measure changes in US influence over foreign countries has a number of particularly attractive characteristics. First, because these interventions were covert at the time, they were largely unaffected by US public opinion, and from the opinion of other

⁹For countries that did not gain independence until after 1947, we report the fraction of years from independence to 1989 for which there was a CIA intervention.

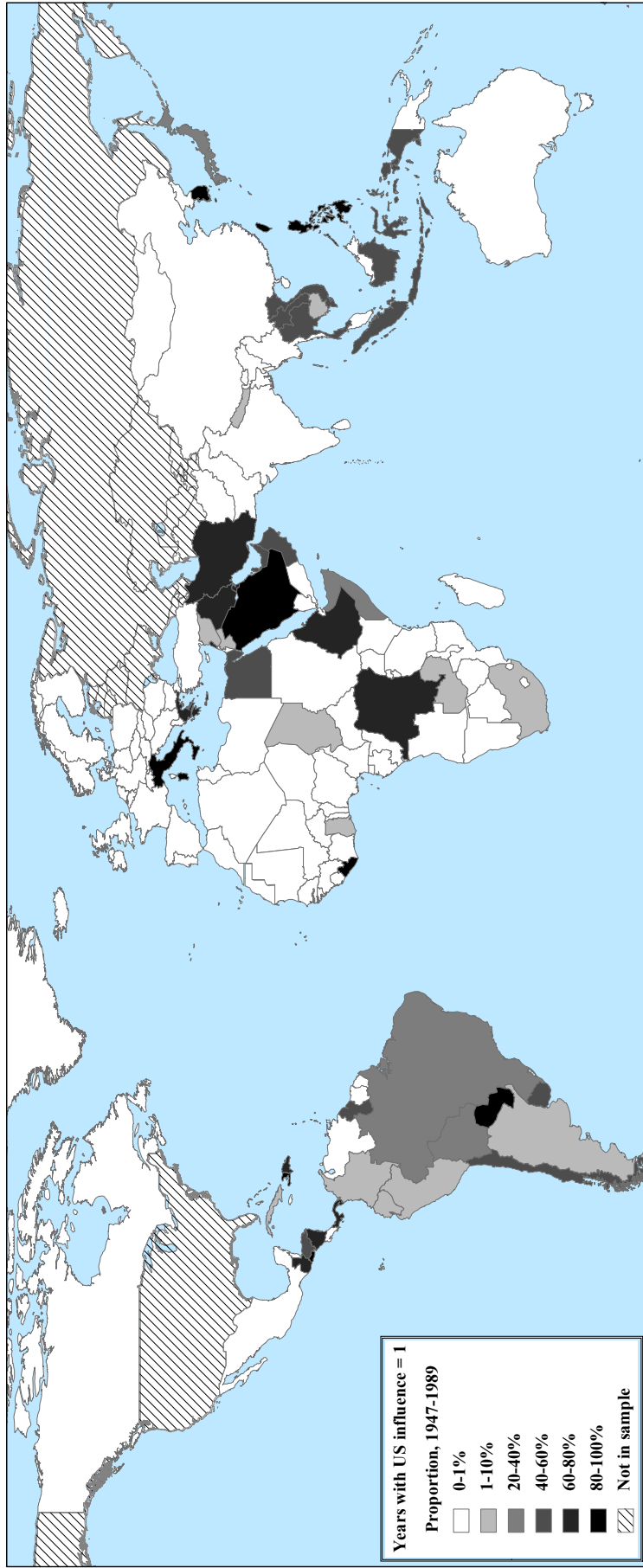


Figure 1: Map showing the fraction of years between 1947 and 1989 with a CIA intervention.

countries in the international arena. This reduces one source of endogeneity for our measure.¹⁰ Further, because the interventions affect the leader in power, they are significant and plausibly have an important impact on US government influence over the regime.

Our measure of covert CIA interventions that install and/or support foreign regimes can be interpreted as a measure of US “client states” or “puppet leaders”, which are well-established subjects of analysis in the qualitative political science literature (e.g., Sylvan and Majeski, 2009). Therefore, an alternative interpretation of our analysis is of the effects of US influence on client states and puppet leaders on bilateral trade flows.

By relying on a dichotomous indicator variable to measure changes in US influence we are only able to estimate the average effects of CIA interventions on our outcomes of interest. The results will not identify any heterogeneity that may exist in reality. For example, interventions may have an increasing or decreasing effect on trade over time as the length of the intervention episode increases. Our estimation implicitly presumes that the effect of an intervention is constant over time and estimates an average effect among all intervention years. As we discuss in section 7C, there is no evidence of heterogeneity along these lines and therefore the assumption of a constant effect over time appears appropriate.

3. Baseline Results

A. Estimating Equations

We derive our estimating equations from Anderson and van Wincoop’s (2003) theoretically derived gravity model with symmetric trade costs. In this setting, trade is given by:

$$m_{t,c,e} = \frac{Y_{t,c}Y_{t,e}}{Y_t^W} \left[\frac{\tau_{t,c,e}}{P_{t,c}P_{t,e}} \right]^{1-\sigma} \quad (1)$$

In equation (1), $m_{t,c,e}$ denotes imports into country c from exporter e in year t . $Y_{t,c}$ is total GDP of the importing country c in year t , $Y_{t,e}$ is total GDP of the exporting country e in year t , and Y_t^W is world GDP in year t . The parameter σ is the elasticity of substitution between goods. $\tau_{t,c,e}$ measures bilateral trade related costs when shipping goods from country e to c , and $P_{t,c}$ and $P_{t,e}$

¹⁰The findings from Dube *et al.* (2011) suggest a potentially important caveat here. The authors provide evidence that US special interests were informed about CIA-planned coups. Specifically, they show that the stock prices of multinational corporations that stood to gain from the coups responded after top secret authorizations were made. In fact, stock prices responded more to these authorizations than to the actual coups themselves. These findings suggests that while the general public was uninformed about covert CIA actions at the time, this may not have been true for an informed subset of the population that was politically connected.

are multilateral resistance terms for countries c and e , respectively. These are complex non-linear functions of the full set of bilateral cost terms $\{\tau_{t,c,e}\}$. See equation (12) of Anderson and van Wincoop (2003) for the derivation and a general discussion.

We derive our estimating equations from equation (1). Our first equation examines the effects of CIA interventions on imports from the US. To derive this equation, let Y_t^{US} be US income. Similarly, let P_t^{US} be the multilateral resistance term for the US, and $\tau_{t,c}^{US}$ be the trade friction between the US and country c . Then country c 's imports from the US in year t , denoted $m_{t,c}^{US}$, is given by:

$$m_{t,c}^{US} = \frac{Y_{t,c} Y_t^{US}}{Y_t^W} \left[\frac{\tau_{t,c}^{US}}{P_{t,c} P_t^{US}} \right]^{1-\sigma}$$

Taking natural logs gives:

$$\ln m_{t,c}^{US} = \ln Y_{t,c} + \ln \frac{Y_t^{US}}{Y_t^W} - (1 - \sigma) \ln P_t^{US} + (1 - \sigma) \ln \frac{\tau_{t,c}^{US}}{P_{t,c}} \quad (2)$$

The empirical counterpart to equation (2) is given by:

$$\ln m_{t,c}^{US} = \alpha_t + \alpha_c + \gamma \ln Y_{t,c} + \beta \text{US influence}_{t,c} + \mathbf{X}_{t,c} \mathbf{\Gamma} + \varepsilon_{t,c} \quad (3)$$

The dependent variable, $\ln m_{t,c}^{US}$, is the natural log of imports into country c from the US in year t . The first term in equation (2), $\ln Y_{t,c}$, is controlled for explicitly in (3). The second and third terms in (2), $\ln \frac{Y_t^{US}}{Y_t^W}$ and $-(1 - \sigma) \ln P_t^{US}$, are absorbed by the year fixed effects α_t in (3). Equation (3) also includes country fixed effects, α_c , to control for time-invariant country characteristics.¹¹ The final term $(1 - \sigma) \ln \frac{\tau_{t,c}^{US}}{P_{t,c}}$ captures the channel through which the CIA intervention variable $\text{US influence}_{t,c}$ affects trade flows. In (3), the coefficient β captures the reduced-form effect of CIA interventions on trade both through country c 's trade costs with the US, $\tau_{t,c}^{US}$, and through its trade costs with all other countries, which are embedded within $P_{t,c}$ (along with $\tau_{t,c}^{US}$). The coefficient β captures the average effect of CIA interventions on the countries that experience an intervention, i.e., the average treatment on the treated.

Equation (3) also includes a vector of additional control variables $\mathbf{X}_{t,c}$. In all specifications, we control for lags of the dependent variable.¹² This is done to capture the persistence of past trade, which may occur because of the existence of fixed trade costs as in Roberts and Tybout

¹¹Because the sample only includes imports from the US (and not imports from other countries), country fixed effects are equivalent to country-pair fixed effects (where the other pair is always the US). They therefore capture bilateral covariates that are standard in bilateral gravity regressions, such as bilateral distance, common language, common legal/colonial origins, a contiguous border, etc.

¹²We choose the number of lags to include by continuing to add lags until they are no longer significant.

(1997).¹³ We also control for a number of factors that likely affected trade with the US and may have been correlated with CIA interventions. These include: an indicator for Soviet/KGB interventions, measured in the same manner as CIA interventions; the natural log of per capita income; an indicator variable that equals one if a country was a GATT participant, either member or non-member; and an indicator variable that equals one if the country had a preferential trade agreement (PTA) with the US.¹⁴

Motivated by recent studies showing that leaders matter (Duflo and Chattopadhyay, 2004, Jones and Olken, 2005, 2009), we also control for an indicator variable that equals one if there is a change in leadership, as well as a measure of the tenure of the current leader. Our final control variables are motivated by the findings from Berger *et al.* (2010), showing that successful CIA interventions had an adverse effect on democracy. We control for an indicator variable that equals one if an observation is a democracy, as defined by Cheibub, Gandhi, and Vreeland (2010).

A common application of the gravity model has been to estimate the Canada-US border effect. In this setting, an important assumption is that the border only affects trade frictions between Canada and the US i.e., τ_{ij} where i is Canada and j is the US. As Anderson and van Wincoop (2003) clearly explain, if one wants to estimate the structural parameter τ_{ij} , then one needs to carefully account for the existence of τ_{ij} in the multilateral resistance terms of Canada P_i and the US P_j . In our analysis, the variable of interest $US\ influence_{t,c}$ will not only affect trade frictions between country c and the US. It will also affect trade frictions between country c and other (non-US) exporters e . US interventions, for example, also affected the ‘costs’ of a country’s trade with the Soviet Union, communist or socialist countries, and even neutral countries. As a result, we are not able to separately identify the effect of interventions on $\tau_{t,c}^{US}$ and $P_{t,c}$. Instead we are only able to identify the reduced-form impact of CIA interventions on the relative costs of trading with the US, $\frac{\tau_{t,c}^{US}}{P_{t,c}}$. Given that we are not interested in estimating the structural parameter $\tau_{t,c}^{US}$ – nor does it conceptually make sense to do so – consistent estimation does not require that we separately identify the effect of CIA interventions working through each country’s multilateral resistance term.

¹³Because the equations include time-period fixed effects, country fixed effects, and lags of the dependent variable, they suffer from a Nickell bias. In section 5A, we show that our results are not seriously affected by the bias. This is not surprising given that the Nickell bias converges to zero as the time dimension of the panel increases. Since we have a large number of time periods in our panel (43 years), the actual bias can be shown to be small. See Nickell (1981) for details.

¹⁴Data on GATT participation are from Tomz, Goldstein, and Rivers (2007).

In our empirical analysis, we also examine how countries' total imports (from all countries) changed following interventions. Within the gravity model framework, world imports, which we denote $m_{t,c}^W$, are given by:

$$m_{t,c}^W = \sum_e \frac{Y_{t,c} Y_{t,e}}{Y_t^W} \left[\frac{\tau_{t,c,e}}{P_{t,c} P_{t,e}} \right]^{1-\sigma} = \frac{Y_{t,c}}{Y_t^W} \sum_e Y_{t,e} \left[\frac{\tau_{t,c,e}}{P_{t,c} P_{t,e}} \right]^{1-\sigma}$$

Taking natural logs gives:

$$\ln m_{t,c}^W = \ln Y_{t,c} - \ln Y_t^W + \ln \sum_e Y_{t,e} \left[\frac{\tau_{t,c,e}}{P_{t,e}} \right]^{1-\sigma} \quad (4)$$

The estimating equation for (4) is:

$$\ln m_{t,c}^W = \alpha_t + \alpha_c + \gamma \ln Y_{t,c} + \beta US\ influence_{t,c} + \mathbf{X}_{t,c} \mathbf{\Gamma} + \varepsilon_{t,c} \quad (5)$$

In equation (5), we control directly for country c 's total GDP in year t , and the year fixed effects α_t absorb $\ln Y_t^W$. Our coefficient of interest captures the reduced-form effect of $US\ influence_{t,c}$ working through $\ln \sum_e Y_{t,e} \left[\frac{\tau_{t,c,e}}{P_{t,e}} \right]^{1-\sigma}$ in equation (4).

The last estimating equation examines the share of a country's total imports that are from the US. To derive the equation, subtract (4) from (2). This gives:

$$\ln \frac{m_{t,c}^{US}}{m_{t,c}^W} = \ln \frac{Y_t^{US}}{(P_t^{US})^{1-\sigma}} + \ln \left\{ \frac{(\tau_{t,c}^{US})^{1-\sigma}}{\sum_e Y_{t,e} \left[\frac{\tau_{t,c,e}}{P_{t,e}} \right]^{1-\sigma}} \right\} \quad (6)$$

The estimating equation for (6) is:

$$\ln \frac{m_{t,c}^{US}}{m_{t,c}^W} = \alpha_t + \alpha_c + \gamma \ln Y_{t,c} + \beta US\ influence_{t,c} + \mathbf{X}_{t,c} \mathbf{\Gamma} + \varepsilon_{t,c} \quad (7)$$

The first term in (6), $\ln \frac{Y_t^{US}}{(P_t^{US})^{1-\sigma}}$, is captured by the year fixed effects α_t in equation (7). Because we are examining the ratio of two trade flows, the total GDP of country c in year t term $\ln Y_{t,c}$ cancels out in (6). However, to maintain consistency across specifications we continue to include this as a control in equation (7).¹⁵ The coefficient of interest β captures the reduced-form effect of US influence working through $\ln \left\{ \frac{(\tau_{t,c}^{US})^{1-\sigma}}{\sum_e Y_{t,e} \left[\frac{\tau_{t,c,e}}{P_{t,e}} \right]^{1-\sigma}} \right\}$ in (6).

Our analysis also examines the effect of CIA interventions on exports to the US, total exports to the world and the share of a country's total exports that are to the US. The estimating equations

¹⁵This is a potentially important covariate, if for example the US is more or less prone to trade with large countries, an effect that would be outside of the model. Our results, however, are nearly identical if we do not control for total GDP in equation (7).

for exports are exactly analogous to equations (3), (5) and (7), except the dependent variables are country c 's exports in year t rather than its imports.

The unit of observation in our equations is a country and year. An alternative estimation strategy is to estimate a bilateral gravity model, where the unit of observation is a directional country-pair in a year, and the dependent variable is the volume of imports from one country to another. One could then examine whether a successful CIA intervention increases the flow of imports from the US to the intervened country. Our estimating equations (3) and (7) are constructed to capture this same variation, but their advantage is that they do not include a large number of observations for which the US is not a trading partner. This alternative strategy, even with clustered standard errors, runs the risk of producing downward-biased standard errors (Bertrand, Duflo, and Mullainathan, 2004). Our estimation strategy aggregates all trade between non-US trade partners to be part of aggregate World trade, which we use to normalize trade flows with the US. The result is that we only have $N \times T$ observations rather than $N(N - 1)T$ observations in our sample (where N is the number of countries and T is the number of time periods). Erikson, Pinto, and Rader (2009) also show that when the question being examined is fundamentally about countries, and not country-pairs, then the preferred specification is one where the unit of observation is country and not a country-pair.¹⁶

In our estimating equations, we assume the effect of interventions to be constant among all observations and estimate the average effect of successful CIA interventions among all countries in our sample. As we discuss below, we provide evidence for a differential effect of interventions between autocracies and democracies. We have also tested for temporal and spatial heterogeneity. We find no evidence that the effects of successful interventions differ across the decades of our sample. This is reassuring since our choice to examine the Cold War period was motivated in part by the homogeneity of the time period. We find some evidence of potential heterogeneity across continents. Specifically, we estimate a larger effect for Asian countries in one specification. Full details of these results are reported in tables A10 and A11 of the appendix.

The trade data used in the estimation are from the Correlates of War (COW) Trade Dataset (Barbieri, Keshk, and Pollins, 2008), which reports annual aggregate bilateral trade flows (measured in millions of nominal US dollars). For the post WWII period, the data are originally

¹⁶As we show in section 6B, our results are qualitatively identical if we estimate a bilateral gravity model with all country-pairs. This specification is also used when we test alternative interpretations of our baseline estimates.

from the International Monetary Fund's *Direction of Trade Statistics*. Exploiting the fact that all transactions are potentially recorded by both the importing and exporting countries, Barbieri *et al.* impute missing flows by using, for example, the exporter's trade statistics if data on imports are missing from the importer's accounts.¹⁷ Because importing countries typically keep more precise records of shipments (because of the existence of tariffs) than exporting countries, the dataset uses importing country accounts when both sources exist.

B. Estimation Results

We now turn to our estimation results. Column 1 of table 1 reports estimates of equation (7) for the full sample. The coefficient on the US intervention measure, *US influence*, is positive and statistically significant. The estimated coefficient indicates that an intervention increased the share of imports from the US by 10.6 percent. We also examine the effects of CIA interventions on the share of the intervened country's exports shipped to the US. These estimates are reported in column 4 of table 1. The coefficient for $US\ influence_{t,c}$ is very small in magnitude and not statistically different from zero. Overall, the estimates from columns 1 and 4 show that although interventions significantly increased the share of a country's imports from the US, they had no effects on the share of a country's exports to the US. As we will see, this asymmetry is extremely robust.

As an initial test for whether the surge in intervened-country imports from the US arose because of an increase in US influence, we examine the effect of interventions separately for autocracies and democracies. The motivation behind this distinction derives from a straightforward logic that is at the core of a number of models in economics and political science: outside influence over government policies will have a greater impact when the government is less accountable to its citizens.¹⁸ Therefore, if interventions increased the imports of US goods because of US influence, we expect to find that interventions had larger impacts in autocratic regime relative to democratic regimes.

¹⁷Full details are provided in Barbieri *et al.* (2008) and Barbieri, Keshk, and Pollins (2009); in particular see table 1 of Barbieri *et al.* (2009).

¹⁸An example is Grossman and Helpman's (1994) "Protection for Sale" where the government weighs the costs associated with a socially suboptimal trade policy against the private benefits that accrue through lobbying. In the model, the key parameter is the weight the government places on aggregate welfare relative to private benefits. Mitra, Thomakos, and Ulubasoglu (2002) show empirically that an important determinant of this is the accountability of the leader to the welfare of its citizens as determined by the political regime (i.e., autocracy versus democracy).

Table 1: The effects of US interventions on the share of imports from the US and the share of exports to the US for autocracies and democracies.

	ln share of imports from the US: ln (Imports from US / Imports from world)			ln share of exports to the US: ln (Exports to US / Exports to world)		
	Full sample	Autocracies	Democracies	Full sample	Autocracies	Democracies
	(1)	(2)	(3)	(4)	(5)	(6)
<i>US influence</i>	0.106*** (0.039)	0.170** (0.069)	0.032 (0.026)	0.043 (0.050)	0.004 (0.070)	0.026 (0.042)
<i>Control variables:</i>						
Lagged dependent variable ($t-1$)	0.521*** (0.068)	0.503*** (0.072)	0.579*** (0.077)	0.600*** (0.044)	0.568*** (0.047)	0.625*** (0.075)
Lagged dependent variable ($t-2$)	0.253*** (0.084)	0.253*** (0.091)	0.185*** (0.056)	0.114*** (0.040)	0.100** (0.043)	0.168* (0.089)
Soviet intervention control	-0.315*** (0.093)	-0.259** (0.122)	-0.158 (0.123)	-0.148** (0.073)	-0.066 (0.105)	0.192 (0.362)
ln per capita income	0.127 (0.088)	0.077 (0.155)	-0.083 (0.076)	0.213* (0.118)	0.333 (0.221)	-0.056 (0.049)
ln total income	-0.124 (0.077)	(0.080) (0.147)	-0.062 (0.044)	-0.069 (0.086)	-0.174 (0.185)	0.115** (0.050)
Leader turnover indicator	-0.026 (0.018)	-0.057* (0.033)	0.005 (0.012)	-0.004 (0.016)	-0.036 (0.033)	0.009 (0.014)
Leader tenure	-0.0017 (0.0022)	-0.0020 (0.0028)	0.0023 (0.0019)	0.0048** (0.0022)	0.0068*** (0.0026)	-0.0004 (0.0019)
GATT participant indicator	0.020 (0.028)	0.077 (0.049)	-0.013 (0.037)	0.031 (0.047)	0.068 (0.081)	-0.014 (0.024)
US trade agreement indicator	-0.024 (0.028)	n.v.	-0.049* (0.026)	0.109** (0.043)	n.v.	0.059** (0.026)
Democracy indicator	-0.001 (0.019)	n.v.	n.v.	-0.043 (0.041)	n.v.	n.v.
Country fixed effects	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y
Observations	3,951	2,507	1,354	3,657	2,230	1,341

Notes: The unit of observation is a country c in year t , where t ranges from 1947 to 1989. All regressions include year fixed effects, country fixed effects, a Soviet intervention control, two lags of the dependent variable, ln per capita income, ln total income, an indicator for leader turnover, current leader tenure, an indicator for GATT participation, an indicator for a preferential trade agreement with the US, and a democracy indicator. Coefficients are reported with Newey-West standard errors with a maximum lag of 40 reported in brackets. "n.v." indicates that there is no variation in the variable within the sample. In columns 2, 3, 5, and 6, the democracy indicator either equals zero or one for all observations. As well, because pre-1989 PTAs with the US only included democratic countries, this variable equals zero for all observations in columns 2 and 5. ***, **, and * indicate significance at the 1, 5 and 10% levels.

To test this, we first group our observations (i.e., country-year pairs) into two categories: autocracies and democracies. A country c in year t is defined as being an autocracy if it is classified as autocratic by Cheibub *et al.* (2010) in both year t and year $t - 1$, and as a democracy if it is classified as democratic in year t and $t - 1$.¹⁹ Estimates with the sample restricted to autocracies only, are reported in columns 2 and 5 of table 1. Column 2 shows that, like the full sample, among the sample of autocracies the estimated effect of US interventions on the share of imports from the US is positive and statistically significant. Further, the estimated magnitude is large. An

¹⁹The democracy and autocracy categories are not mutually exclusive. A small number of observations are democratic in year t and autocratic in $t - 1$, or vice versa. These observations are not included in either sample. The results are robust to including these observations in either the autocracy or democracy samples.

intervention increases the share of imports that are from the US by 17.0 percent, which is much larger than the increase of 10.6 percent for the full sample. The effect of interventions on the share of exports to the US continues to be close to zero.

Estimates with the sample restricted to democracies are reported in columns 3 and 6 of table 1. The results show that unlike the full sample of observations and the subsample of autocracies, we cannot reject a zero relationship between US interventions and the share of imports from the US.²⁰ Consistent with the influence hypothesis, interventions only have an effect on the share of imports from the US in regimes where the leader is less accountable to its citizens and has more ability to choose policies freely.²¹

To gain a better understanding of the increased share of imports from the US, we separately examine the effect of interventions on imports from the US, and on total imports from all countries, by estimating equations (3) and (5). We also estimate the analogous equations, but with exports, rather than imports as the dependent variable. The estimation results are reported in table 2. Columns 1–2 report estimates of equation (3), where the dependent variable is the natural log of imports from the US, while columns 3–4 report estimates of (5), which has the natural log of total imports from all countries as the dependent variable. The results show that following an intervention there is an increase in the volume of imports from the US and no change in total imports. Therefore, the increased share of imports from the US arose from a shift away from imports from other countries and towards imports from the US. In other words, the increased share of imports from the US was a result of trade diversion, and not trade creation. According to the estimates from columns 1–2, a US intervention increased the volume of imports from the US in that year by 12.8 percent for the full sample, and 17.9 percent for autocracies. These increases are similar to the shares estimates from table 1. Columns 5–8 report the estimated effects of interventions on exports. The estimates provide no evidence that CIA interventions affected exports to the US or to the world. These results are consistent with the findings from table 1.

In tables 1 and 2, we also report the estimates for the full set of control variables. The

²⁰This finding parallels the finding from Jones and Olken (2005) that leader deaths have larger macroeconomic effects in autocracies than in democracies. As well, MacGillivray and Smith (2004) provide empirical evidence showing that leadership turnover has little effect in democracies, but has a strong adverse effect on the volume of trade in autocracies.

²¹An alternative explanation is that the effect of interventions is greater for countries that are less open to trade. Since autocracies are generally less open to trade, this may explain our findings. However, as we show in the paper's appendix (see table A12), we do not find a larger effect of CIA interventions among countries that are less open to trade.

Table 2: The effects of US interventions on the flow of imports and exports.

	ln imports from the US		ln imports from the world		ln exports to the US		ln exports to the world	
	Full sample	Autocracies	Full sample	Autocracies	Full sample	Autocracies	Full sample	Autocracies
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>US influence</i>	0.128*** (0.043)	0.179** (0.075)	0.023 (0.017)	0.003 (0.028)	0.080 (0.053)	0.036 (0.083)	0.021 (0.018)	0.003 (0.033)
<i>Control variables:</i>								
Lagged dependent variable ($t-1$)	0.614*** (0.073)	0.601*** (0.080)	0.711*** (0.072)	0.685*** (0.083)	0.621*** (0.040)	0.591*** (0.042)	0.799*** (0.046)	0.784*** (0.048)
Lagged dependent variable ($t-2$)	0.159** (0.076)	0.163* (0.085)	-0.038 (0.027)	-0.046 (0.029)	0.141*** (0.035)	0.138*** (0.037)	-0.016 (0.040)	-0.02 (0.040)
Soviet intervention control	-0.333*** (0.117)	-0.289** (0.146)	-0.023 (0.054)	-0.045 (0.066)	-0.230** (0.096)	-0.159 (0.125)	-0.089** (0.044)	-0.071 (0.064)
ln per capita income	0.377*** (0.113)	0.247 (0.211)	0.278*** (0.094)	0.159 (0.153)	0.582*** (0.150)	0.666** (0.270)	0.324*** (0.050)	0.253*** (0.091)
ln total income	-0.016 (0.100)	0.105 (0.209)	0.196*** (0.068)	0.337** (0.139)	-0.040 (0.100)	-0.097 (0.225)	0.057 (0.043)	0.142 (0.095)
Leader turnover indicator	-0.028 (0.020)	-0.045 (0.037)	0.006 (0.013)	0.023 (0.022)	-0.007 (0.019)	-0.048 (0.041)	0.007 (0.014)	-0.001 (0.023)
Leader tenure	-0.0003 (0.0023)	-0.0005 (0.0029)	0.0021 (0.0015)	0.0020 (0.0019)	0.0060** (0.0026)	0.0078** (0.0031)	0.0017 (0.0013)	0.0017 (0.0017)
GATT participant indicator	0.0331 (0.029)	0.0976* (0.055)	0.017 (0.032)	0.049 (0.057)	0.058 (0.044)	0.073 (0.078)	0.037 (0.024)	0.040 (0.044)
US trade agreement indicator	-0.007 (0.034)	n.v.	-0.009 (0.031)	n.v.	0.123** (0.060)	n.v.	0.027 (0.033)	n.v.
Democracy indicator	0.014 (0.023)	n.v.	0.023 (0.019)	n.v.	-0.021 (0.042)	n.v.	0.024 (0.015)	n.v.
Country fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y
Observations	3,951	2,507	4,181	2,737	3,657	2,230	4,177	2,733

Notes: The unit of observation is a country c in year t , where t ranges from 1947 to 1989. All regressions include year fixed effects, country fixed effects, a Soviet intervention control, two lags of the dependent variable, ln per capita income, ln total income, an indicator for leader turnover, current leader tenure, an indicator for GATT participation, an indicator for a preferential trade agreement with the US, and a democracy indicator. Coefficients are reported with Newey-West standard errors with a maximum lag of 40 reported in brackets. "n.v." indicates that there is no variation in the variable within the sample. In columns 2, 4, 6, and 8 the democracy indicator equals zero for all observations. As well, because pre-1989 PTAs with the US only included democratic countries, this variable also equals zero for all observations in these columns. ***, **, and * indicate significance at the 1, 5 and 10% levels.

coefficients for the one year lag of the dependent variable are consistently positive and significant, providing evidence for hysteresis in trade flows, possibly arising from network effects or fixed costs of trade. The other coefficient estimates are generally as expected: Soviet interventions tend to decrease trade with the US, countries with greater per capita income import and export more from all countries including the US. The results also show that preferential trade agreements with the US and increased leader tenure are associated with increased exports to the US. To conserve on space, in the remaining tables of the paper we do not report the estimates for the full set of control variables.²²

To provide the reader with a better sense of the magnitudes of the estimates, we undertake a number of counterfactual calculations. For intervened countries, we calculate how different imports from the US would have been absent CIA interventions. In figure A2, reported in the

²²These are available upon request.

appendix, we show actual and counterfactual US imports for Chile. According to calculations using estimates from column 1 of table 2, following the CIA interventions beginning in 1964, counterfactual and actual imports diverge significantly. For example, by 1988, the final period of the intervention episode, actual imports from the US totaled 1.0 billion US dollars, while the counterfactual value of imports is estimated to be only 575 million US dollars, just over half of the actual value.²³

4. Causality: The Selection of Interventions

There are a number of reasons why one cannot take our estimates of β in equations (3) and (7) as causal estimates of the effects of US influence on trade. Our estimating equations, through their inclusion of country fixed effects and time period fixed effects, control for country-specific time-invariant factors and time-specific country-invariant factors that may potentially bias our estimates of interest. However, there remains the possibility of bias resulting from factors that vary simultaneously by country and time period. In our setting, the primary concern is that there may be selection in the targeting of CIA interventions. Of particular concern is the possibility that interventions may have been more likely when a country had recently experienced a decline in its imports of US products. This is an example of the famous “Ashenfelter dip” (Ashenfelter, 1978). The presence of pre-intervention dips in US imports will bias upwards our estimated effects of interventions on US trade.

We undertake a number of strategies to reduce any potential bias that may arise from the endogeneity of interventions. Our first strategy controls for pre-trends in the dependent variable. By doing this, we are hoping to capture the ‘dips’ in imports, which are a source of potential bias. Estimates controlling for five-year pre-trends (i.e., $\ln m_{t-1,c}^{US} - \ln m_{t-6,c}^{US}$) are reported in columns 1 and 6 table 3. Our second strategy is to add pre-intervention fixed effects in the estimating equations. Specifically, we control for an indicator variable that equals one if the observation (country c in period t) is between 1 and 5 years prior to an intervention. The fixed effects capture

²³Although CIA interventions had a large impact on trade flows from the perspective of intervened countries, the impact of interventions on US total exports was not particularly large. In 1965, at the height of CIA activity, US exports totaled 28.0 billion dollars. According to the counterfactual calculations, without any covert CIA activities, total US exports would have been 25.6 billion dollars. See the appendix (particularly figure A3) for further details.

Table 3: Controlling for the selection of interventions.

	Dependent variable: ln share of imports from the US									
	Full sample					Autocracies only				
	5-year pre-trends	5-year pre-intervention FEs	Pre-intervention onset FEs	Sanctions, alliances, military disputes FE	Add x-rate and inflation	5-year pre-trends	5-year pre-intervention FEs	Pre-intervention onset FEs	Sanctions, alliances, military disputes FE	Add x-rate and inflation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
<i>US influence</i>	0.135*** (0.046)	0.090** (0.043)	0.104*** (0.038)	0.092*** (0.032)	0.116*** (0.040)	0.228*** (0.082)	0.148** (0.070)	0.161** (0.069)	0.128** (0.053)	0.166** (0.071)
Five year pre-trend of dep. var.	Y	N	N	N	N	Y	N	N	N	N
Five year pre-intervention FEs	N	Y	N	N	N	N	Y	N	N	N
Pre-intervention onset FEs	N	N	Y	N	N	N	N	Y	N	N
Sanction and military dispute FEs	N	N	N	Y	Y	N	N	N	Y	Y
Exchange rate and inflation	N	N	N	N	Y	N	N	N	N	Y
Observations	3,443	3,951	3,951	3,951	3,557	2,168	2,507	2,507	2,507	2,209

Notes: The unit of observation is a country c in year t , where t ranges from 1947 to 1989. The dependent variable is the natural log of the share of imports from the US. All regressions include year fixed effects, country fixed effects, a Soviet intervention control, two lags of the dependent variable, ln per capita income, ln total income, an indicator for leader turnover, current leader tenure, an indicator for GATT participation, an indicator for a preferential trade agreement with the US, and a democracy indicator. Columns 1 and 6 control for 5 year pre-trends of the dependent variable (log changes in the dependent variable between periods $t-6$ and $t-1$). Columns 2 and 7 include an indicator variable that equals one if period t is within 5 years prior to an intervention. Columns 3 and 8 include an indicator variable that equals one if period t is within 5 years prior to the onset of an intervention. Coefficients are reported with Newey-West standard errors in brackets. ***, **, and * indicate significance at the 1, 5 and 10% levels.

average differences (which may affect the dependent variable) that exist in the periods prior to an intervention. These estimates are reported in columns 2 and 7 of table 3.

Our third strategy (reported in columns 3 and 8 of table 3) is to control for the selection-bias that arises from the endogeneity of the *onset* of interventions, rather than the endogeneity of each intervention period. It may be that it is only the beginning of an intervention episode that is affected by selection. To account for this possibility, we control for an indicator variable that equals one if the observation is between 1 and 5 years prior to the onset of an intervention episode.

Overall, the estimates reported in columns 1–3 and 6–8 of table 3 show that the results are unaffected by these corrections for the potential selection of interventions. This is perhaps not surprising in light of the existing historical evidence, which suggests that increased trade with the US was not a factor that affected the timing and location of CIA interventions. The motive behind interventions stemmed from the government’s reaction to perceived threats of Communism during a period characterized by a heavily subjective Cold War mentality. This characteristic of CIA interventions is highlighted by Westad in his book *The Global Cold War*, where he writes that “US involvements were perceived in America as defensive interventions, mainly against left wing or Communist movements” (Westad, 2005, p. 111). The extent to which these interventions were driven by subjective perceptions and by an almost paranoid Cold War mentality is clear from Blum’s (2004, p. 13) description of US motivations: “perhaps the most

deeply ingrained reflex of knee-jerk anti-communism is the belief that the Soviet Union (or Cuba or Vietnam, etc., acting as Moscow's surrogate) is a clandestine force lurking behind the facade of self-determination, stirring up the hydra of revolution here, there, and everywhere".

As an explicit test of the literature's view on the motives behind CIA interventions, we test whether changes in trade with the US predict subsequent CIA interventions. We find that consistent with the historiography they do not. Estimates, which we report in appendix table A5, show that CIA interventions do not respond to lagged five year changes in the share of imports from the US, lagged five year changes in total imports from the US, lagged one or two year levels of the share of imports from the US, or lagged one or two year levels of total imports from the US.

We next turn to potentially omitted factors that may bias our estimates. We control for the nature of foreign relations with the US, which may have been correlated with initially low US imports and the subsequent onset of CIA interventions. We measure relations with the US using three two sets of variables. The first is a set of indicator variables that measure military disputes with the US. The indicators equal one if either side (the US or the foreign country) threatens to use force, displays force, or uses force. The second is an indicator variable that equals one if during the period there are US sanctions against exporting to the country. The third is an indicator variable that equals one if the country has an alliance with the US.²⁴ Estimates with these additional controls are reported in columns 4 and 9 of table 3. Another concern is that adverse economic conditions may have caused low initial trade with the US and the onset of CIA interventions. Although our baseline estimates control for total GDP and real per capita GDP in each period, we also check the robustness of our estimates to the inclusion of additional measures of the health of the economy. In columns 5 and 10, we control for the one-year average inflation rate (between period $t - 1$ and t) and for the real exchange rate.²⁵ The estimates remain robust to the inclusion of the additional control variables. The point estimates for *US influence* remain statistically significant, with magnitudes that are similar to the baseline estimates.

The final test for causality that we perform takes an event-study approach and examines the precise timing of the first impacts of CIA interventions. This is done by controlling for 2–5

²⁴The military dispute data are from Maoz (2005), the sanctions data are from Hufbauer, Schott, Elliott, and Oegg (2009), and the alliance data are from the COW Alliance Dataset 3.03.

²⁵Both measures are from the Penn World Tables 6.3. Because the PWT only has data for 1950 and later, the sample size decreases with the inclusion of the controls.

years of leads and lags of the onset year. We find that even controlling for these leads and lags, intervention onsets continue to have a positive impact on US imports. As well, we find that all of the estimated lead and lag coefficients are statistically insignificant. These results show that US imports first increase at exactly the same time as the onset of the intervention episode, not earlier and not later. The estimates are reported in appendix table A4.²⁶

5. Robustness and Sensitivity Analysis

A. *Alternative Specifications*

As our estimating equation, we have chosen a stringent specification that includes country fixed effects, time period fixed effects and lags of the dependent variable. To test the robustness of our estimates to alternative specifications, we estimate alternative specifications that include lags of the dependent variable, but no fixed effects, as well as equations with time and country fixed effects, but without lags of the dependent variable. We also estimate the fixed-effects-only specifications controlling for linear and non-linear country-specific time trends. Finally, we also estimate our baseline equations using the Bruno estimator (see Bruno, 2005), which only includes one lagged dependent variable. The estimation results using any of the alternative specifications are qualitatively identical to the estimates from our baseline equations (see appendix table A6). The estimated coefficients for *US influence* remain positive and statistically significant.²⁷

Since our estimating equations are derived from a log-linearization of the theoretically derived gravity model, zero trade observations are dropped from the sample. Although, the number of observations dropped for this reason is small (only 228 of 4,179 potential observations), we check that our conclusions are not sensitive to the omission of these observations. Re-estimating equation (7) with the share of imports from the US, rather than the log share of imports from the US, as the dependent variable yields qualitatively identical results. Similarly, using the Poisson pseudo maximum likelihood (PPML) estimator suggested by Santos Silva and Tenreyro (2006) also yields qualitatively similar estimates. The estimates are reported in appendix table A7.

²⁶We thank an anonymous referee for suggesting this additional robustness check.

²⁷Our baseline estimates potentially suffer from the Nickell bias, which in panels of our length (43 years), has been shown to be small (Nickell, 1981). The unimportance of this bias for our estimates is also supported by the fact that the alternative specifications reported here – none of which suffer from the Nickell bias – all yield estimates similar to our baseline estimates.

B. *Alternative Intervention Measures*

A potential concern is measurement error in our CIA intervention variable. One source of error arises from the fact that our data are measured at annual frequencies, while in reality CIA activities occurred in continuous time. This results in some imprecision when coding $US\ influence_{t,c}$. For example, in the case of Chile, since Salvador Allende won the election on September 4, 1970, it is unclear whether we should code $US\ influence_{t,c}$ as one or zero for Chile in 1970. The rule we follow in constructing our baseline measure is to include the years of the onset and offset of interventions as being an intervention year. Therefore, since 1970 is an offset year of the CIA's support of Eduardo Frei, it is coded as one. We have checked that none of our results depend on this decision. Choosing instead to code onset- and offset-intervention years as zero yields results that are virtually identical to what we report here.

We also test the robustness of our estimates to an alternative, more narrow measure of CIA interventions. Unlike our baseline variable $US\ influence_{t,c}$, the alternative measure only takes on the value of one if, at the beginning of the CIA intervention episode, a new leader was installed by the CIA. This definition excludes interventions where the CIA began to support a leader that was not installed by the CIA.²⁸ Using this alternative measure yields estimates that are qualitatively identical to the results using the baseline intervention measure. We continue to find that interventions increase the share of imports from the US, the effect is larger for autocracies, and interventions have no effect on the share of a country's exports to the US. The magnitudes of the coefficient estimates are also similar to the baseline estimates.²⁹

Interestingly, if we separately estimate the effect of interventions where the CIA began to support a leader that was not installed by the CIA, we find that these interventions have much smaller effects and are not significantly different from zero (also see table A8). This suggests that interventions that support pre-existing regimes had smaller effects on US influence and therefore on imports from the US. To be as conservative as possible, throughout the analysis we continue to use our broader baseline definition of successful CIA interventions.

²⁸In the sample, 40 percent of the observations in which $US\ influence_{t,c} = 1$ also take on the value of one based on the more narrow definition.

²⁹The estimates are reported in appendix table A8.

6. Testing Alternative Explanations

A. Trade Costs Explanation

To this point, we have documented a relationship between CIA interventions and increased imports from the US, and have interpreted this as evidence of the effect of US influence, gained through covert CIA interventions, on the sale of US products in the intervened country. An alternative explanation for the increase in imports from the US is that CIA interventions resulted in a decrease in bilateral trading costs between the US and the foreign country. To distinguish between these two mechanisms, we move to the industry level and examine which industries experienced the greatest surge in imports from the US following an intervention. If the increase in imports from the US arose because of a decrease in trading costs between the foreign country and the US, then the increase in shipments from the US should have been in industries in which the US had a comparative advantage. With a movement towards free trade, countries increasingly export the goods that they have a relative cost advantage in producing and import the goods they have a relative disadvantage in producing. This logic of comparative advantage is central to standard models of international trade ranging from the textbook Ricardian or Heckscher-Ohlin models of trade to more recent models of comparative advantage with firm heterogeneity (e.g., Bernard, Redding, and Schott, 2007).

Testing this prediction of the trade costs explanation requires a measure of US competitiveness across industries and time periods. For this we use Balassa's (1965) measure of revealed comparative advantage (RCA). The measure, which captures the degree of specialization of a country in a particular industry, is given by:

$$RCA_{t,c,i} = \frac{x_{t,c,i}}{\sum_c x_{t,c,i}} \bigg/ \frac{\sum_i x_{t,c,i}}{\sum_i \sum_c x_{t,c,i}}$$

where $x_{t,c,i}$ denotes the aggregate exports of country c in a 2, 3 or 4-digit SITC industry i in year t . The RCA measure is a ratio of two ratios. The first ratio, the numerator, is country c 's share of world exports *in industry i* . The second ratio, the denominator, is country c 's share of world exports *in all industries*. That is, RCA compares the country's share of global exports in industry i to the share for all industries. If the ratio is above one, then the country captures a greater share of global exports in industry i than it does on average. This is then taken as an indicator that the

country has a comparative advantage in producing in industry i . If the ratio is less than one, then the country captures less of the world export share in industry i than it does on average.

We construct industry-specific RCA measures for the US for each year in the sample. We find that overall the measures are consistent with intuition. In general, the US had low relative export shares in low-end manufacturing industries like beverages, footwear, and textiles, and high export shares in high-end industries like transport equipment, scientific equipment, chemicals, and firearms. For the interested reader, we report the US RCA measures at the SITC 2-digit level for two years, 1962 and 1989, in the appendix in tables A14 and A15.

To test whether following an intervention the increase in imports from the US was greatest in the industries in which the US had a comparative advantage, we estimate an equation that examines the effect of CIA interventions on the share of imports from the US across industries:

$$\begin{aligned} \ln \frac{m_{t,c,i}^{US}}{m_{t,c,i}^W} = & \alpha_t + \alpha_c + \alpha_i + \beta_1 US\ influence_{t,c} + \beta_2 US\ influence_{t,c} \times US\ RCA_{t,i} \\ & + \beta_3 US\ influence_{t,c} \times Importer\ RCA_{t,c,i} + \beta_4 US\ RCA_{t,i} + \beta_5 Importer\ RCA_{t,c,i} \\ & + \sum_{n=1}^N \gamma_n \ln \frac{m_{t-n,c,i}^{US}}{m_{t-n,c,i}^W} + \mathbf{X}_{t,c} \boldsymbol{\Gamma} + \varepsilon_{t,c,i} \end{aligned} \quad (8)$$

In equation (8) the unit of observation is a year t , a country c , and an industry i . In addition to year fixed effects, country fixed effects, and the full set of covariates, the specification now includes industry fixed effects. As well, the dependent variable is the natural log of imports from the US into country c in year t in industry i . Industry-level trade data are from the United Nations' Comtrade Database. Unlike the aggregate-level COW trade data, the Comtrade data only begin in 1962, and therefore the sample only includes years between 1962 and 1989.

Equation (8) allows the effect of an intervention to differ across industries depending on the extent to which the importing country has a comparative advantage in industry i and, most importantly, depending on the extent to which the US has a comparative advantage in industry i . The variables $Importer\ RCA_{t,c,i}$ and $US\ RCA_{t,i}$ measure importer and US comparative advantage in the production of good i in year t .³⁰ If the increase in imports is from a decrease in transactions costs, then we expect $\beta_2 > 0$. The increase in US imports should have been greater in industries in which the US had a greater comparative advantage (or less of a comparative disadvantage). As predicted by standard models of international trade, increased integration should have caused

³⁰To allow an easy interpretation of the magnitudes of the estimated effects, we have normalized $US\ RCA_{t,i}$ and $Importer\ RCA_{t,c,i}$ to lie between zero and one by subtracting the minimum value of the variable and then dividing by the maximum value.

Table 4: Testing the trade costs explanation using revealed comparative advantage.

	Dependent variable: ln share of imports from the US											
	World market RCA						Developing country market RCA					
	Full sample			Autocracies only			Full sample			Autocracies only		
	2-digit industries	3-digit industries	4-digit industries	2-digit industries	3-digit industries	4-digit industries	2-digit industries	3-digit industries	4-digit industries	2-digit industries	3-digit industries	4-digit industries
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
<i>US influence</i>	0.069*** (0.023)	0.072*** (0.017)	0.059*** (0.015)	0.133*** (0.043)	0.100*** (0.029)	0.063*** (0.024)	0.074*** (0.023)	0.074*** (0.017)	0.056*** (0.015)	0.136*** (0.043)	0.101*** (0.030)	0.053** (0.025)
<i>US influence</i> × <i>US RCA</i>	-0.228*** (0.056)	-0.309*** (0.060)	-0.251*** (0.057)	-0.360*** (0.076)	-0.323*** (0.086)	-0.197** (0.083)	-0.319*** (0.074)	-0.288*** (0.055)	-0.200*** (0.057)	-0.483*** (0.100)	-0.286*** (0.079)	-0.100 (0.085)
<i>US RCA</i>	0.885*** (0.079)	1.372*** (0.073)	1.365*** (0.061)	1.138*** (0.138)	1.277*** (0.126)	1.370*** (0.117)	1.201*** (0.104)	1.257*** (0.074)	1.146*** (0.135)	1.545*** (0.178)	1.187*** (0.120)	1.074*** (0.183)
Observations	92,705	222,118	335,731	49,293	102,525	131,837	92,705	222,118	335,731	49,293	102,525	131,837

Notes: The unit of observation is a country c in year t in a 2, 3 or 4-digit SITC industry i , where t ranges from 1962 to 1989. The dependent variable is the natural log of the share of imports from the US. All regressions include year fixed effects, country fixed effects, industry fixed effects, a Soviet intervention control, four lags of the dependent variable, importer RCA, importer RCA interacted with *US influence*, ln per capita income, ln total income, an indicator for leader turnover, current leader tenure, an indicator variable for GATT participation, an indicator for a preferential trade agreement with the US and a democracy indicator. Coefficients are reported with standard errors clustered at the country-year level in brackets. ***, **, and * indicate significance at the 1, 5 and 10% levels.

countries to specialize in (and export more of) the products that they were relatively good at producing.

If the increase in trade did not arise because of comparative advantage, then we no longer expect $\beta_2 > 0$. There is no reason to expect the increase to necessarily be greater in industries in which the US had a comparative advantage. Instead, the US may have pushed to sell goods which it was only marginally competitive in producing, and otherwise would have had difficulty selling. In this case we expect $\beta_2 \leq 0$. Therefore, the estimated coefficient for β_2 provides a test between the trade costs and influence explanations.

Estimates of equation (8) are reported in table 4. Columns 1–3 report estimates for the full sample, while columns 4–6 report estimates for autocracies only. We report standard errors clustered at the country-year level.³¹ In all specifications, the estimated coefficients for *US influence* × *US RCA* are negative and statistically significant, indicating that interventions increased imports more in industries in which the US had a comparative *disadvantage*, not comparative advantage. This finding is in contrast to what is expected if the increase in trade were from a decrease in bilateral trading costs between the US and the intervened country.³²

A potential criticism of the RCA measure is that it does not distinguish between a country's

³¹Clustering produces standard errors that are larger in magnitude than Newey-West standard errors. Therefore, to be as conservative as possible, we report the clustered standard errors.

³²The total effect of *US influence* on imports from the US is given by $\beta_1 + \beta_2 US RCA_{t,i} + \beta_3 Importer RCA_{t,c,i}$. Examining this, we find that for nearly all observations (countries, years, and industries), the total effect of *US influence* is greater than or equal to zero. This is also confirmed when we estimate equation (3) industry by industry (see appendix table A13). Therefore, CIA interventions had a non-negative effect on the purchase of US products in nearly every industry, and the effects were greatest in industries in which the US was globally least competitive.

exports to developed countries (DCs) and its exports to less developed countries (LDCs). The two groups of countries may represent different segmented markets. Since the market size of LDCs is much smaller than of DCs, when the US serves the LDC market, its share of total world exports may be low, and therefore its measure of RCA may also be low. If interventions decreased bilateral trade costs between the US and the intervened LDCs, then this may have caused the US to specialize more in products that serve the LDC market, and as a result, imports from the US increased most in industries with low measures of RCA.

According to this explanation, the failure of the test results because we are incorrectly measuring RCA. Rather than measuring US RCA using exports to the whole world, we should measure RCA using exports to LDCs only. We check for this possibility by constructing an alternative measure of RCA that is calculated using only the share of exports to LDCs, rather than the share of exports globally.³³ Estimates using the alternative RCA measure are reported in columns 7–12 of table 4. As shown, the results are nearly identical using the alternative RCA measure.³⁴

Taken as a whole, the results provide evidence against the hypothesis that the increase in US imports following an intervention was the result of a decrease in trade costs between the US and the intervened country.

B. Political Ideology Explanation

In light of existing evidence that countries with more similar political ideologies trade more (e.g., Dixon and Moon, 1993), it is possible that the increase in imports from the US can be explained by a change in the ideology of the intervened country following an intervention. The increase in imports from the US arises not because of US influence, but because the new regime has an ideology that is more aligned with the US. Imports from all ideologically similar countries increased, and the US just happens to be one of these countries.

Testing this hypothesis requires that we examine whether imports from countries with an ideology similar to the US also increased following CIA interventions. Our current estimating equations, because they only examine a country's imports from the US, cannot be used for this purpose. Therefore, we estimate a variant of our baseline estimating equation (3), which examines

³³We define the LDC market to be countries other than Australia, Austria, Belgium, Canada, Switzerland, East and West Germany, Denmark, Great Britain, Ireland, Italy, France, Finland, Japan, Luxembourg, Norway, Netherlands, New Zealand, Portugal, Spain, and Sweden.

³⁴Results using the natural log of imports from the US, rather than the natural log of the share imports from the US generate estimates that are qualitatively identical to what we report here (see table A16 of the appendix).

each country c 's imports from all other countries in the world, not just the US:

$$\begin{aligned} \ln m_{t,c,e} = & \alpha_t + \alpha_{c,e} + \beta_1 US\ influence_{t,c} + \beta_2 US\ influence_{t,c} \times I_e^{US} \\ & + \sum_{n=1}^N \gamma_n \ln m_{t-n,c,e} + \mathbf{X}_{t,c}\mathbf{\Gamma} + \mathbf{X}_{t,e}\mathbf{\Omega} + \varepsilon_{t,c,e} \end{aligned} \quad (9)$$

where t indexes years and c now indexes importers, and e indexes exporters. The dependent variable is the natural log of imports into country c from exporting country e in year t . The equation controls for time period fixed effects α_t , and country-pair fixed effects $\alpha_{c,e}$, which absorb standard gravity controls, like bilateral distance, common language, a common legal origin, a contiguous border, etc. As before, the equation also includes lags of the dependent variable, and importer covariates, $\mathbf{X}_{t,c}$. It also now includes exporter covariates, $\mathbf{X}_{t,e}$.

As in equation (3), our variable of interest is $US\ influence_{t,c}$, which equals one if the importing country c experienced a CIA intervention in year t . Because we now include all country-pairs in the sample, we allow the effect of interventions on imports to differ depending on whether the imports are from the US or not. We allow for this differential effect by also including $US\ influence_{t,c} \times I_e^{US}$ in the estimating equation, where I_e^{US} is an indicator variable that equals one if the exporting country is the US. The interaction captures the differential effect of interventions on imports from the US relative to the average effect of interventions on imports from other countries.

Estimates of equation (9) are reported in columns 1 and 6 of table 5, for the full sample and autocracies respectively. The results are qualitatively identical to the baseline estimates. Although US interventions did not increase imports from non-US countries, they did cause a significant increase in imports from the US. As well, the effects are more pronounced if we restrict the sample to autocratic importers.³⁵

Building on equation (9), we can test whether CIA interventions also caused an increase in imports from countries with ideologies and preferences that were similar to the US. To construct a measure of similarity to the US, we use voting information from the UN General Assembly. Define $d_{t,c}$ to be the sum of the vote distance between country c and the US for all votes in year t , where a vote in opposition to the US is given a distance of one, and a vote with the US is given a

³⁵One can also use an analogous bilateral estimating equation to examine the effect of US interventions in country c on its exports to other countries. Indexing importing countries by m , the estimating equation is: $\ln x_{t,c,m} = \alpha_t + \alpha_{c,m} + \beta_1 US\ influence_{t,c} + \beta_2 US\ influence_{t,c} \times I_m^{US} + \sum_{n=1}^N \gamma_n \ln x_{t-n,c,m} + \mathbf{X}_{t,c}\mathbf{\Gamma} + \mathbf{X}_{t,m}\mathbf{\Omega} + \varepsilon_{t,c,m}$. Doing this we find that consist with the country-year estimates, CIA interventions had no effect on the volume of exports to the US or to other countries. The estimates are reported in appendix table A9.

distance of zero.³⁶ Also define d_t^{max} to be the maximum sum of vote distances possible in year t . We then construct the following measure of country c 's voting similarity with the US in year t :

$$V_{t,c}^{US} \equiv 1 - \frac{d_{t,c}}{d_t^{max}}$$

The measure ranges from 0 to 1, and is increasing in the vote similarity of the country with the US.³⁷

We use $V_{t,c}^{US}$ to test whether following US interventions, imports from countries that were ideologically similar to the US also increased. In practice, this is done by allowing the effect of interventions in equation (9) to differ systematically depending on the political ideology of the exporter:

$$\begin{aligned} \ln m_{t,c,e} = & \alpha_t + \alpha_{c,e} + \beta_1 US\ influence_{t,c} + \beta_2 US\ influence_{t,c} \times I_e^{US} + \beta_3 US\ influence_{t,c} \times V_{t,e}^{US} \\ & + \beta_4 V_{t,e}^{US} + \sum_{n=1}^N \gamma_n \ln m_{t-n,c,e} + X_{t,c} \Gamma + X_{t,e} \Omega + \varepsilon_{t,c,e} \end{aligned} \quad (10)$$

The added interaction term $US\ influence_{t,c} \times V_{t,e}^{US}$ tests whether imports from countries that were ideologically similar to the US also increased following CIA interventions. If the ideology explanation is correct, then we expect β_3 to be positive and significant. We are also interested in how the estimated impact of interventions on imports from the US, β_2 , changes with the addition of $US\ influence_{t,c} \times V_{t,e}^{US}$.

Estimation results are reported in columns 2 and 7 of table 5. The estimates of β_2 remain robust to the inclusion of the new interaction term: they remain positive and significant, and their magnitudes change little.³⁸ The estimates also show that following an intervention, imports from countries ideologically close to the US did not increase.

The remaining columns of table 5 report results using alternative measure of country e 's alignment with the US. Rather than using UN voting data, we also measure $V_{t,e}^{US}$ using indicator

³⁶See Gartzke (2006) for details. The measure we use ignores abstentions. An alternative is to code a value of two for votes against the US, a value of one for abstentions, and zero for votes with the US. Using this alternative coding yields qualitatively identical results to what we report here.

³⁷One concern is that voting similarity may not reflect similarity in political ideology. We check this possibility by examining the correlation between a country's voting alignment with the US and a measure of left, center or right political alignment from Keefer (2005). The political alignment data are only available from 1975. However, coding left, center and right alignments as 1, 2 and 3, respectively, we find a strong positive correlation between the two measures. Regressing US vote similarity on political alignment yields a standardized beta coefficient of 0.29 and a t -statistic of 10.55.

³⁸The coefficients are comparable to the estimates of equation (9) reported in columns 1 and 2 of the table. The only difference between the two estimates, besides the inclusion of $V_{t,e}^{US}$ and $US\ influence_{t,c} \times V_{t,e}^{US}$, is a slightly different number of observations because of missing voting data.

Table 5: Testing the political ideology explanation.

	Dependent variable: ln bilateral imports									
	Full sample					Autocracies				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>US influence</i>	0.004 (0.011)	0.002 (0.038)	0.002 (0.013)	0.009 (0.014)	0.007 (0.014)	-0.039** (0.017)	0.048 (0.057)	-0.050** (0.021)	-0.059** (0.023)	-0.065*** (0.023)
<i>US influence × US exporter</i>	0.136*** (0.051)	0.139*** (0.052)	0.130** (0.052)	0.146*** (0.051)	0.133*** (0.051)	0.212** (0.097)	0.237** (0.100)	0.180* (0.099)	0.181* (0.098)	0.238** (0.098)
<i>US influence × US alignment of exporter, V^{US}</i>		0.006 (0.043)					-0.103 (0.065)			
<i>US influence × Original NATO member exporter</i>			0.008 (0.020)					0.043 (0.032)		
<i>US influence × OECD member exporter</i>				-0.015 (0.019)					0.051 (0.032)	
<i>US influence × Western European exporter</i>					-0.009 (0.019)					0.069** (0.031)
<i>US alignment of exporter</i>	N	Y	N	N	N	N	Y	N	N	N
Observations	175,772	163,063	175,772	175,772	175,772	90,598	82,331	90,598	90,598	90,598

Notes: The unit of observation is a country-pair in year t , where t ranges from 1947 to 1989. The dependent variable is the natural log of imports into country c from country e in year t . All regressions include year fixed effects, country-pair fixed effects, three lags of the dependent variable, a Soviet intervention control (and the same interactions as for the CIA intervention variable), ln importer per capita income, ln exporter per capita income, ln importer total income, ln exporter total income, an indicator for importer leader turnover, an indicator for exporter leader turnover, importer current leader tenure, exporter current leader tenure, indicator variable for the importer being a GATT participant, indicator variable for the exporter being a GATT participant, an indicator if the importer has a preferential trade agreement with the US, an indicator if the exporter has a preferential trade agreement with the US, an importer democracy indicator, and an exporter democracy indicator. Coefficients are reported with Newey-West standard errors in brackets. ***, **, and * indicate significance at the 1, 5 and 10% levels.

variables that equals one if: (i) country e was an original 1949 member of NATO, (ii) country e was an OECD country, or (iii) country e was a Western European country. The results using the three alternative measures are very similar (columns 3–5 and 8–10). In all specifications but one, we find no evidence of a differential impact of interventions on imports from these countries. The one exception is for exports from Western Europe in the sample of only autocracies. More importantly, we find that the estimated effect of CIA interventions on imports from the US remains robust to also allowing for differential imports from these countries.³⁹

C. US Loans and Grants Explanation

If interventions were followed by an increase in US foreign aid, particularly tied or conditional aid, then this may be an alternative explanation for why interventions increased imports from the US.⁴⁰ To examine this empirically, we use data on the value of US foreign aid received by each country.⁴¹ The aid data are disaggregated into economic aid (which includes grants and

³⁹An alternative strategy is to use voting as a measure of ideological similarity, but to examine a more homogenous group of exporters, namely only NATO, OECD or Western European exporters. For these more homogenous exporters, UN voting arguably better reflects ideological differences between the countries. Undertaking this strategy, we continue to find a differential impact of CIA interventions on imports from the US. The results are reported in table A17 of the appendix.

⁴⁰The fact that US imports increased most in low US RCA industries suggests that if this explanation is correct, then the provision of grants and loans were used to promote US sales in industries in which US firms were less competitive. This would also be an interesting and important finding.

⁴¹The data are from the U.S. Agency for International Development's (USAID) *U.S. Overseas Loans and Grants, Obligations and Loan Authorizations* annual report, also known simply as the "Green Book".

Table 6: The effect of interventions on US loans and grants.

	Full sample				Autocracies only			
	Economic aid	Military aid	Food aid	Ex-Im Bank loans	Economic aid	Military aid	Food aid	Ex-Im Bank loans
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>US influence</i>	0.160** (0.066)	0.118* (0.065)	0.086 (0.054)	0.134 (0.086)	0.342*** (0.0983)	0.278*** (0.088)	0.220*** (0.075)	0.277*** (0.105)
Observations	3,951	3,951	3,951	3,951	2,507	2,507	2,507	2,507

Notes: The unit of observation is a country c in year t , where t ranges from 1947 to 1989. The dependent variables are the natural log of the measure of aid that is reported in the column heading. All regressions include year fixed effects, country fixed effects, a Soviet intervention control, two lags of the dependent variable, \ln per capita income, \ln total income, an indicator for leader turnover, current leader tenure, an indicator variable for GATT participation, an indicator for a preferential trade agreement with the US, and a democracy indicator. Coefficients are reported with Newey-West standard errors in brackets. ***, **, and * indicate significance at the 1, 5 and 10% levels.

concessional loans), military aid (which includes grants, concessional loans, and training), and food aid. As a test of whether the increase in US imports is explained by an increase in US foreign aid, we check whether US foreign aid increased following CIA interventions, and if the changes in aid are able to account for the observed increase in US imports.

In table 6, we report estimates of our baseline estimating equation (3), but with measures of US loans and grants as the dependent variable. Columns 1 and 5 report estimates when the dependent variable is the natural log of one plus the dollar value of economic aid provided by the US to country c in year t . Columns 2 and 6 report results for military aid, and columns 3 and 7 report results for food aid. The results show that all forms of US aid tended to increase following CIA interventions (although the coefficient for food aid is insignificant in the full sample). We also examine loans given by the US Export-Import Bank (Ex-Im Bank). The mandate of the Bank is to provide loans to foreign firms wanting to import US products. Because the Bank only provides loans that would not be provided by private lenders, they enable foreign customers to purchase US goods, thereby increasing imports from the US. Columns 4 and 8 of table 6 show that Ex-Im Bank loans also tended to increase following CIA interventions.

Table 7 reports estimates that test whether the increase in foreign aid accounts for the increase in US imports following an intervention. We do this by estimating equation (7) while controlling for the amount of US loans and grants received by a country in a year. For comparison, we report the baseline estimates without the additional controls in columns 1 and 6. In columns 2 and 7, we include the measures of economic and military aid. Economic aid enters with positive and significant coefficients, while military aid enters with insignificant coefficients that are very

Table 7: Accounting for US loans and grants.

	Dependent variable: ln share of imports from the US									
	Full sample					Autocracies only				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>US influence</i>	0.106*** (0.039)	0.087** (0.035)	0.094** (0.037)	0.104*** (0.038)	0.085** (0.034)	0.170** (0.069)	0.132** (0.061)	0.141** (0.064)	0.162** (0.066)	0.120** (0.058)
ln (1+US economic aid)		0.041*** (0.010)			0.024*** (0.009)		0.060*** (0.017)			0.039** (0.016)
ln (1+US military aid)		-0.008 (0.008)			-0.006 (0.007)		-0.008 (0.016)			-0.008 (0.016)
ln (1+US food aid)			0.059*** (0.013)		0.043*** (0.012)			0.076*** (0.021)		0.052*** (0.018)
ln (1+Ex-Im Bank loans)				0.012** (0.005)	0.013*** (0.005)				0.023*** (0.008)	0.024*** (0.008)
Observations	3,951	3,951	3,951	3,951	3,951	2,507	2,507	2,507	2,507	2,507

Notes: The unit of observation is a country c in year t , where t ranges from 1947 to 1989. All regressions include year fixed effects, country fixed effects, a Soviet intervention control, two lags of the dependent variable, ln per capita income, ln total income, an indicator for leader turnover, current leader tenure, an indicator for GATT participation, an indicator for a preferential trade agreement with the US and a democracy indicator variable. Coefficients are reported with Newey-West standard errors in brackets. ***, **, and * indicate significance at the 1, 5 and 10% levels.

close to zero. This suggests that part of US economic aid is used to purchase US products, which is unsurprising since US economic aid is often tied to purchases from US producers. The insignificant coefficient for military aid is not surprising, since much of military aid goes to supporting overseas US personnel, and these goods are not included in the IMF's DOT statistics (International Monetary Fund, 1993). Columns 3 and 8 control for food aid, and columns 4 and 9 control for Ex-Im Bank loans. Both variables enter with positive and significant coefficients.

Lastly, in the columns 5 and 10, we simultaneously control for all measures of US loans and grants. Controlling for the variables together has the largest impact on the estimated coefficients for $US\ influence_{t,c}$. However, the size of the decline is still modest. The coefficient magnitudes are reduced by about 20% in both the full sample and the subsample of autocracies. The results suggest that although increases in US loans and grants are able to explain some of the effect of interventions on imports from the US, it is a modest proportion of the total. This is consistent with the fact that foreign aid flows are not large enough to account for the observed increase in imports from the US. The ratio of US total aid to US imports is 0.15 for the median observation in the sample. Therefore, even if an intervention-induced increase in US aid was transformed one-for-one into imports (which in reality is far from true), CIA interventions would need to increase aid by 71% to increase imports by the 10.6% ($71\% \times 0.15 = 10.6\%$) that we estimate (e.g., column 1 of tables 1 and 7). The estimated effects of interventions on US aid found in columns

1–4 of table 6 are much lower than this, ranging instead from 8.6 to 16.0%.⁴²

The evidence presented here comes with an important caveat, however. The aid measures used in the analysis only include observed aid flows and do not include covert aid from the CIA. Therefore, it is possible that these unobserved aid flows account for a non-trivial portion of the impact of CIA interventions unexplained by the observed aid flows.

7. Underlying Mechanisms

We now turn to an examination of mechanisms. There are a number of ways in which US influence could be used to increase the foreign sale of US products. First, the foreign government could be influenced by the US government to purchase US products directly. Second, the foreign government could be influenced to alter domestic policies, which create an incentive for its citizens to purchase more US products. An example of such a policy is regulations against foreign direct investment (FDI). If US influence was used to allow greater foreign investment by American firms, then this may have led to more US imports, since US-owned firms tend to import more from the US. Another example is tariffs and other trade barriers. If following an intervention, tariffs were reduced – particularly tariffs that protected against competition from US producers – then this may have resulted in increased imports from the US. We consider each of these mechanisms in turn. As we show, we find evidence for the foreign-government purchases mechanism, but we do not find evidence that US FDI or tariffs played a role.

A. Government Purchases

As a share of GDP, government purchases have typically been around 20 percent for industrialized nations and 15 percent for developing nations (Baldwin, 1970, p. 58, Audet, 2002). Removing compensation to employees and focusing only on purchases of goods, the figures become 10.3 and 8.8 percent, respectively (Audet, 2002). These figures can be compared to the predicted intervention-induced increase in imports based on our estimates. According to the estimates from column 1 of table 2, the average observation in the sample experienced an increase in US imports equal to 8.5 percent of GDP. (For the median observation, the figure is 7.7 percent.)

⁴²An explanation, similar to the US loans and grants explanation, is that the US may have sold goods at a discount to intervened countries. If the demand for US products was sufficiently elastic, then this could explain the increase in the total value of US imports. Using unit value data from Feenstra (1997), we have examined the prices of imports from the US, and find that they are not affected by CIA interventions.

Table 8: The government purchases mechanism.

	ln share of imports from the US				ln imports from the US			
	Full sample		Autocracies		Full sample		Autocracies	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>US influence</i>	0.133*** (0.048)	-0.016 (0.052)	0.218** (0.093)	0.019 (0.112)	0.130** (0.051)	-0.052 (0.054)	0.200** (0.095)	-0.033 (0.110)
<i>US influence</i> × <i>Gov't expenditure share</i>		0.819*** (0.180)		0.894*** (0.216)		1.010*** (0.232)		1.047*** (0.263)
Government expenditure share		-0.599*** (0.216)		-0.584* (0.324)		-0.414* (0.236)		-0.046 (0.373)
Observations	3,623	3,623	2,246	2,246	3,623	3,623	2,246	2,246

Notes: The unit of observation is a country c in year t , where t ranges from 1947 to 1989. All regressions include year fixed effects, country fixed effects, a Soviet intervention control, two lags of the dependent variable, ln per capita income, ln total income, an indicator for leader turnover, current leader tenure, an indicator for GATT participation, an indicator for a preferential trade agreement with the US and a democracy indicator. Coefficients are reported with Newey-West standard errors in brackets. ***, **, and * indicate significance at the 1, 5 and 10% levels.

Therefore, from a purely quantitative standpoint, the purchase of goods by governments is large enough to potentially account for the observed increase in imports from the US following a CIA intervention.

In addition, it is well-known that government purchases are highly discriminatory, with suppliers chosen based on other criteria besides lowest costs (Baldwin, 1970, Lowinger, 1976, Audet, 2002). Recent evidence also suggests that influence, power and connections are important factors that affect a government's choice of suppliers. Exploiting variation in election outcomes, Cingano and Pinotti (2010) find that in Italy in the 1990s, when firms became politically connected, their sales to the government increased significantly. For the average firm, this increase raised profits by five percent. Looking within the US between 1990 and 2004, Goldman, Rocholl, and So (2008) find a similar positive link between increased political connections (following national elections) and increased awards of government contracts among S&P 500 companies.

We test for this mechanism by examining whether the estimated impact of CIA interventions on US imports is stronger in countries where the government controls a greater share of the economy, which we measure using the share of government expenditures in GDP, taken from the Penn World Tables Mark 6.3. Estimation results are reported in table 8. The odd numbered columns of the table reproduce the baseline estimates with the smaller sample sizes that arise due to missing government expenditure data.⁴³ The even numbered columns report estimates of a specification that allows the effect of CIA interventions to differ depending on the government's share of GDP. As shown, the interaction between $US\ influence_{t,c}$ and the government expenditure

⁴³Data on government expenditure share are unavailable for all countries, and are only available beginning in 1950 onwards.

share is positive and statistically significant in every specification. The magnitudes of the estimates suggest significant heterogeneity across observations. According to the estimates from column 1, the effect of CIA interventions on observations between the 10th and 90th percentiles range from .050 to .213.⁴⁴

The estimated coefficient for *US influence* provides the estimated effect of US interventions for a hypothetical country with zero government expenditure. Therefore, it can be interpreted as the estimated impact of interventions after shutting down the channel that works through the government. In all four specifications, the estimated coefficients are not statistically different from zero. This suggests that direct government purchases may explain the full impact.

An alternative strategy is to allow for differential impacts of CIA interventions in industries and countries and test whether US imports are greater when a country's government purchases large amounts in an industry. Doing this requires information on the share of total output purchased by the government of all countries and in all industries. Unfortunately, this requires detailed input-output (I-O) tables for every country, which are unavailable. Instead, we use a detailed 413 industry I-O table available from South Korea in 2000. We match the South Korean industry classification to the SITC 2-digit classification, and calculate the proportion of domestic sales in each industry purchased by the South Korean government. This provides a measure of the extent of government purchases of products from each industry. Because the industry measure for South Korea is inevitably an imperfect measure for other countries, we create two general categories, dividing industries into those with high levels of government purchases (above the median value) and those with low levels (below the median value). With the assumption that the high and low grouping for government purchase intensity is similar for other countries as well, we estimate our industry level regressions separately for the two groups of industries. The results, which are reported in appendix table A19, show that the estimated impact of CIA interventions is typically twice the magnitude in high government purchase industries relative to the low government purchase industries. As a check of the robustness of this result, we also measure government purchases in an industry using the share of total *imports* that are purchased by the government.⁴⁵ Arguably, this is a more appropriate measure given that we are interested in the impact of interventions on imports from the US. The results using this alternative classification

⁴⁴The government expenditure shares for countries at the 10th, and 90th percentiles are .08 (i.e. 8%) and 0.28. The effects for each percentile are calculated as follows: $-.016 + .08 \times .819 = .050$ and $-.016 + .28 \times .819 = .213$.

⁴⁵This is also measured using South Korea's 2000 I-O table.

are qualitatively identical to the results using the baseline measure (see appendix table A21).

Overall, examining industry-level heterogeneity provides evidence consistent with the findings from the country-level heterogeneity. CIA interventions had greater impacts on US imports in industries in which government purchases tend to be high.

B. Other mechanisms: FDI and tariffs

We now turn to the possibility that the effects of US interventions worked through tariffs or FDI. Using data from the Bureau of Economic Analysis (BEA) we examine whether interventions were followed by increases in US FDI in the intervened country. Examining a number of different measures of outward US FDI, we find no evidence of a positive and significant relationship between interventions and subsequent US FDI. Full estimates are reported in appendix table A22.

We test the tariff mechanism using information from the *International Customs Journal* published by the International Customs Tariff Bureau (BITD), which, since 1890, has translated and published countries' tariff schedules on a continuous basis. An ideal test of the tariff channel would rely on annual industry-level ad valorem tariffs for all countries. Although these data are available in print format, unfortunately they have not yet been digitized, converted to ad valorem equivalents, and linked to a standard industry classification. Instead, we use information from the BITD on the timing of countries' tariff restructuring. When a country significantly changes its tariff structure, a new 'volume' is published for the country. If minor changes to the tariff structure are made, then a 'supplement' to the most recent volume is published. Therefore, the publication of a new volume provides indication that there was a significant change in the country's tariff structure.

Using this information, we examine whether US interventions had a greater impact on US imports after a revision to the intervened-country's tariff schedule. If interventions affected US imports through tariff changes, the greatest effects of an intervention should occur after tariffs were altered. We test for this by constructing a variable that equals one for intervention years that follow a change in the tariff structure that occurred during the intervention episode, where an intervention episode is defined as continuous years of intervention.

We find no evidence of greater effects of CIA interventions following a restructuring of a country's tariffs. In none of our estimations (appendix table A24) is the post-tariff change

intervention variable positive. We also find that interventions do not increase the likelihood of a subsequent change in tariffs.

C. Additional Evidence from Timing

The evidence reported to this point suggests that most, if not all, of the increase in foreign-country imports from the US arose through government purchases, and not through government policies that affected tariffs or FDI. We also undertake an additional test, based on the timing of the effects of interventions, which allows us to further assess these findings. Among the channels we have considered, government procurement of foreign products can respond most quickly to US influence. Foreign governments can immediately switch to the purchase of US products. Other mechanisms, like tariffs and FDI, require a change in government policies, and this takes time. Further, these mechanisms also require that private actors in the economy respond to the changed policies, which also takes time. Therefore, the speed at which interventions cause an increase in imports from the US provides evidence about the underlying causal mechanism. If US influence immediately increased imports from the US, then this is added evidence for the government procurement channel.

We undertake two strategies to examine timing. The first is to disaggregate *US influence* into three variables: an indicator variable that equals one in the first year (onset) of an intervention episode, an indicator for the last year (offset) of the episode, and indicator variable for interventions in the years between the onset and offset years. The estimates, reported in table A25 in the appendix, show that interventions, even in their first year, have large effects. US influence causes an immediate increase in imports from the US. Further, we find that no statistically significant difference between the impacts of onset, intermediate and offset intervention years.

The second strategy we employ allows the effect of *US influence* to differ depending on the number of previous consecutive years of interventions experienced by the country. This tests explicitly whether, during an intervention episode, a year of intervention begins to have a stronger or weaker impact on trade over time. In practice, we interact *US influence* with how many years into the intervention episode period t is. Again, we find no evidence of a stronger or weaker effect of interventions over time.

8. Conclusions

We have provided evidence that covert CIA interventions increased the influence of the US over foreign governments, and that this was used to increase US exports to the intervened countries. Consistent with the influence mechanism, the increase was most pronounced among autocratic importers and in industries in which the US had a comparative *disadvantage*. Our analysis was able to rule out alternative explanations for the increase in imports from the US, including decreased trade costs, changing political ideology and increased US loans and grants.

These findings contribute to several literatures. First, they complement the existing evidence on the importance of political economy determinants of trade flows by showing that CIA interventions also affect the pattern of trade.⁴⁶ As well, by isolating the role of political influence, our findings provide support for existing evidence that influence and power play an important role in international trade.⁴⁷ Finally, our findings also add to existing studies that examine, both qualitatively and quantitatively, the history of the CIA using recently declassified documents.⁴⁸

There are a number of natural directions for future research. The first is a more precise examination of the mechanisms underlying our results. Although the macro-level evidence we have presented indicate that government procurement contracts play an important role, we still require a deeper understanding of the precise mechanisms. Most likely, this requires micro-level data that captures the means by which government contracts are assigned to suppliers from the US, and the precise lobbying/bidding process by which low comparative advantage manufacturers are able to gain a disproportionate share of these contracts. The second is to examine additional consequences of CIA interventions. We have examined the effects of a specific type of CIA intervention on one dimension of international trade. However, interventions may have had a host of additional impacts, both at the macro- and micro-levels. For instance, the financial consequences of CIA interventions remain largely unexplored and may constitute a promising area of future research.

⁴⁶See for example Verdier (1998), Mansfield *et al.* (2000), Russett and Oneal (2001), Mansfield *et al.* (2002), Frye and Mansfield (2003), Kono (2006) and Mansfield *et al.* (2008).

⁴⁷See Yeats (1990), Gowa and Mansfield (1993), Mansfield *et al.* (2002), Kuziemko and Werker (2006), Dreher and Jensen (2007), and Kilby (2009).

⁴⁸See for example Weiner (2007) and Dube *et al.* (2011).

References

- Aidt, Toke S., and Facundo Albornoz, "Political Regimes and Foreign Intervention," (2010), mimeo, University of Cambridge.
- Anderson, James, and Eric van Wincoop, "Gravity with Gravitas: A Solution to the Border Puzzle," *American Economic Review*, 93 (2003), 170–192.
- Anderton, Charles H., and John R. Carter, "The Impact of War on Trade: An Interrupted Times-Series Study," *Journal of Peace Research*, 38 (2001), 445–457.
- Andrew, Christopher, and Vasili Mitrokhin, *The Sword and the Shield: The Mitrokhin Archive and the Secret History of the KGB* (Basic Books, New York, 2000).
- , *The World Was Going Our Way* (Basic Books, New York, 2005).
- Antràs, Pol, and Gerard Padró-i-Miquel, "Foreign Influence and Welfare," (2008), mimeo, Harvard University.
- Ashenfelter, Orley A., "Estimating the Effects of Training Programs on Earnings," *Review of Economics and Statistics*, 60 (1978), 47–57.
- Audet, Denis, "Government Procurement: A Synthesis Report," *OECD Journal of Budgeting*, 2 (2002), 149–194.
- Balassa, Bella, "Trade Liberalization and 'Revealed' Comparative Advantage," *The Manchester School of Economics and Social Studies*, 32 (1965), 99–123.
- Baldwin, Robert E., *Nontariff Distortions of International Trade* (The Brookings Institution, Washington D.C., 1970).
- Barbieri, Katherine, Omar M.G. Keshk, and Brian Pollins, "Correlates of War Project Trade Data Set Codebook, Version 2.0," (2008), mimeo, June 17, 2008.
- Barbieri, Katherine, Omar M.G. Keshk, and Brian M. Pollins, "Trading Data: Evaluating our Assumptions and Coding Rules," *Conflict Management and Peace Science*, 26 (2009), 471–491.
- Barbieri, Katherine, and Jack S. Levy, "Sleeping with the Enemy: The Impact of War on Trade," *Journal of Peace Research*, 36 (1999), 463–479.
- Berger, Daniel, Alejandro Corvalan, William Easterly, and Shanker Satyanath, "Superpower Interventions and their Consequences for Democracy: An Empirical Inquiry," (2010), mimeo, New York University.
- Bernard, Andrew B., Stephen J. Redding, and Peter K. Schott, "Comparative Advantage and Heterogeneous Firms," *Review of Economic Studies*, 74 (2007), 31–66.
- Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan, "How Much Should We Trust Differences-in-Differences Estimates?" *Quarterly Journal of Economics*, 119 (2004), 249–275.
- Blum, William, *Killing Hope: U.S. Military and C.I.A. Interventions since World War II* (Common Courage Press, Monroe, ME, 2004).
- Bruno, Giovanni S. F., "Approximating the Bias of the LSDV Estimator for Dynamic Unbalanced Panel Data Models," *Economics Letters*, 87 (2005), 361–366.

- Cheibub, José Antonio, Jennifer Gandhi, and James Raymond Vreeland, "Democracy and Dictatorship Revisited," *Public Choice*, 143 (2010), 67–101.
- Cingano, Federico, and Paolo Pinotti, "Politicians at Work: The Private Returns and Social Costs of Political Connections," (2010), mimeo, Bank of Italy.
- Dixon, William J., and Bruce E. Moon, "Political Similarity and American Foreign Trade Patterns," *Political Research Quarterly*, 46 (1993), 5–25.
- Dreher, Axel, and Nathan M. Jensen, "Independent Actor or Agent? An Empirical Analysis of the Impact of U.S. Interests on International Monetary Fund Conditions," *Journal of Law and Economics*, 50 (2007), 105–124.
- Dube, Arindrajit, Ethan Kaplan, and Suresh Naidu, "Coups, Corporations, and Classified Information," *Quarterly Journal of Economics*, 126 (2011), forthcoming.
- Duflo, Esther, and Raghavendra Chattopadhyay, "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India," *Econometrica*, 72 (2004), 1409–1443.
- Erikson, Robert S., Pablo M. Pinto, and Kelly T. Rader, "'Dirty Pool' Revisited: When Less is More," (2009), mimeo, Columbia University.
- Feenstra, Robert, "U.S. Exports, 1972–1994," Working Paper 5990, NBER (1997).
- Findlay, Ronald, and Kevin H. O'Rourke, *Power and Plenty: Trade, War, and the World Economy in the Second Millennium* (Princeton University Press, Princeton, 2007).
- Frye, Timothy, and Edward D. Mansfield, "Fragmenting Protection: The Political Economy of Trade Policy in the Post-Communist World," *British Journal of Political Science*, 33 (2003), 635–657.
- , "Timing is Everything: Elections and Trade Liberalization in the Postcommunist World," *Comparative Political Studies*, 37 (2004), 371–398.
- Galtung, Johan, "A Structural Theory of Imperialism," *Journal of Peace Research*, 8 (1971), 81–117.
- Gartzke, Erik, "The Affinity of Nations Index, 1946–2002," (2006), mimeo, Columbia University.
- , "The Capitalist Peace," *American Journal of Political Science*, 51 (2007), 166–191.
- Goldman, Eitan, Jorg Rocholl, and Jongil So, "Political Connections and the Allocation of Procurement Contracts," (2008), mimeo, Indiana University.
- Gowa, Joanne, and Edward D. Mansfield, "Power, Politics and International Trade," *American Political Science Review*, 87 (1993), 408–420.
- Grossman, Gene M., and Elhanan Helpman, "Protection for Sale," *American Economic Review*, 84 (1994), 833–850.
- Head, Keith, Thierry Mayer, and John Ries, "The Erosion of Colonial Trade Linkages after Independence," *Journal of International Economics*, 81 (2010), 1–14.
- Henisz, Witold J., and Edward D. Mansfield, "Votes and Vetoes: The Political Determinants of Commercial Openness," *International Studies Quarterly*, 50 (2006), 189–212.
- Hirschman, Albert O., *National Power and the Structure of Foreign Trade* (University of California Press, Berkeley, 1945).

- Hufbauer, Gary Clyde, Jeffrey J. Schott, Kimberly Ann Elliott, and Barbara Oegg, *Economic Sanctions Reconsidered, 3rd Edition* (Peterson Institute for International Economics, Washington, D.C., 2009).
- International Monetary Fund, *A Guide to Direction of Trade Statistics* (IMF Statistics Department, Washington, D.C., 1993).
- Johnson, Loch K., "Covert Action and Accountability: Decision-Making for America's Secret Foreign Policy," *International Studies Quarterly*, 33 (1989), 81–109.
- , "On Drawing a Bright Line for Covert Operations," *American Journal of International Law*, 86 (1992), 284–309.
- Jones, Benjamin, and Benjamin Olken, "Do Leaders Matter? National Leadership and Growth Since World War II," *Quarterly Journal of Economics*, 120 (2005), 835–864.
- , "Hit or Miss? The Effect of Assassinations on Institutions and War," *American Economic Journal: Macroeconomics*, 1 (2009), 55–87.
- Keefer, Philip, "Database of Political Institutions: Changes and Variable Definitions," (2005), mimeo, Development Research Group, World Bank.
- Kilby, Christopher, "The Political Economy of Conditionality: An Empirical Analysis of World Bank Loan Disbursements," *Journal of Development Economics*, 89 (2009), 51–61.
- Kono, Daniel Y., "Optimal Obfuscation: Democracy and Trade Policy Transparency," *American Political Science Review*, 100 (2006), 369–384.
- Kuziemko, Ilyana, and Eric Werker, "How Much is a Seat on the Security Council Worth? Foreign Aid and Bribery at the United Nations," *Journal of Political Economy*, 114 (2006), 905–930.
- Leary, William M., *The Central Intelligence Agency: History and Documents* (University of Alabama Press, Tuscaloosa, AL, 1984).
- Lohmann, Susanne, and Sharyn O'Halloran, "Divided Government and U.S. Trade Policy: Theory and Evidence," *International Organization*, 48 (1994), 595–632.
- Lowinger, Thomas C., "Discrimination in Government Procurement of Foreign Goods in the U.S. and Western Europe," *Southern Economic Journal*, 42 (1976), 451–460.
- MacGillivray, Fiona, and Alastair Smith, "The Impact of Leadership Turnover on Trading Relations between States," *International Organization*, 58 (2004), 567–600.
- Mansfield, Edward D., and Marc L. Busch, "The Political Economy of Nontariff Barriers: A Cross-National Analysis," *International Organization*, 49 (1995), 723–749.
- Mansfield, Edward D., Helen V. Milner, and Jon C. Pevehouse, "Democracy, Veto Players and the Depth of Regional Integration," *World Economy*, 31 (2008), 67–96.
- Mansfield, Edward D., Helen V. Milner, and B. Peter Rosendorff, "Free to Trade: Democracies, Autocracies, and International Trade," *American Political Science Review*, 94 (2000), 305–321.
- , "Why Democracies Cooperate More: Electoral Control and International Trade Agreements," *International Organization*, 56 (2002), 477–513.
- Mansfield, Edward D., and Jon C. Pevehouse, "Trade Blocs, Trade Flows, and International Conflict," *International Organization*, 54 (2000), 775–808.

- Maoz, Zeev, "Dyadic MID Dataset (version 2.0)," (2005), uC Davis.
- Mitchener, Kris James, and Marc Weidenmier, "Trade and Empire," *Economic Journal*, 188 (2008), 1805–1834.
- Mitra, Devashish, Dimitrios D. Thomakos, and Mehmet A. Ulubasoglu, "Protection for Sale in a Developing Country: Democracy vs. Dictatorship," *Review of Economics and Statistics*, 84 (2002), 497–508.
- Nickell, Stephen J., "Biases in Dynamic Models with Fixed Effects," *Econometrica*, 49 (1981), 1417–1426.
- Roberts, Mark J., and James R. Tybout, "The Decision to Export in Colombia: An Empirical Model of Entry with Sunk Costs," *American Economic Review*, 87 (1997), 545–564.
- Russett, Bruce, and John R. Oneal, *Triangulating Peace: Democracy, Interdependence, and International Organizations* (Norton, New York, 2001).
- Santos Silva, J.M.C., and Silvana Tenreyro, "The Log of Gravity," *Review of Economics and Statistics*, 88 (2006), 641–658.
- Sylvan, David, and Stephen Majeski, *U.S. Foreign Policy in Perspective: Clients, Enemies and Empire* (Routledge, New York, 2009).
- Tomz, Michael, Judith L. Goldstein, and Douglas Rivers, "Do We Really Know That the WTO Increases Trade? Comment," *American Economic Review*, 97 (2007), 2015–2018.
- Verdier, Daniel, "Democratic Convergence and Free Trade," *International Studies Quarterly*, 42 (1998), 1–24.
- Weiner, Tim, *Legacy of Ashes* (Doubleday, New York, 2007).
- Weissman, Stephen R., "CIA Covert Action in Zaire and Angola: Patterns and Consequences," *Political Science Quarterly*, 94 (1979), 263–286.
- Westad, Odd Arne, *The Global Cold War: Third World Interventions and the Making of our Times* (Cambridge University Press, Cambridge, 2005).
- Yeats, Alexander J., "Do African Countries Pay More for Imports? Yes," *World Bank Economic Review*, 4 (1990), 1–20.
- Yergin, Daniel, *The Prize: The Epic Quest for Oil, Money, and Power* (Simon & Schuster, New York, 1991).