


RESEARCH ARTICLE

Antidumping Protectionism and Globalized Economies

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Abstract

Why do firms demand antidumping protectionism? Contemporary literature highlights a plethora of causal mechanisms within the data-generating process, including retaliatory motives, exchange rate appreciations, business cycles, and deindustrialization. I argue that countries that are economically integrated into global markets should be associated with less demand for antidumping trade remedies. In particular, countries with higher levels of trade and financial flows should receive fewer petitions for antidumping trade remedies from firms overall, *ceteris paribus*. I test this theoretical argument with a series of *de facto* globalization indicators collected from thirty-three countries between 1978 and 2022, finding support for these arguments.

Keywords: international political economy; globalization; economic integration; foreign direct investment; international trade; antidumping

Introduction

Countries have incrementally employed antidumping trade remedies more frequently throughout the post-war period, with countries employing measures twice as often in present times than they did in 1995.¹ Previous literature has documented this trend.² Balassa (1978) commented on this phenomenon, referring to it as the spread of a “new protectionism” encompassing the rapid proliferation of antidumping duties and other non-tariff measures with trade-stifling effects.³ Ethier and Fischer (1987) similarly wrote that this trend differs substantially from traditional protectionism in that these measures involve “applications of a limited number of well-defined statutes (notably the antidumping and countervailing-duty laws, safeguard provisions, and unfair trade practices acts)” rather than adding to aggregate national levels of protectionism writ large.⁴ Moore and Zanardi (2011) point to the possibility of substitution effects explaining these trends, with reductions in traditional trade barriers being sustained by the introduction of antidumping trade remedies following multilateral trade agreement rounds or preferential trade agreements.⁵

What factors explain the upsurge in non-traditional trade barriers over the past few decades? Though the dissemination of antidumping laws provides an interesting puzzle for scholars, it may hold implications for trade policy. Antidumping policy has been the subject of debate among trade economists and political scientists. Indeed, antidumping laws have often been argued to promote fair competition and protect domestic economies from unfair trade practices (e.g. dumping products at “less than fair value”) and international market volatility.⁶ Jacob Viner himself argued in 1923 that antidumping laws were a necessity to prevent real economic injuries arising from dumping.⁷ However,

¹See Ba and Coleman (2021).

²Greenaway (1983); Vandebussche and Zanardi (2006); Bown and Kee (2011).

³p. 429.

⁴p. 1–2.

⁵Bhagwati (2008); Moore and Zanardi (2011); Bown and Tovar (2011).

⁶Mastel, (1998).

⁷Viner, (1923).

other scholars have linked these policies to trade dampening and chilling effects, which carry economic consequences as a corollary.⁸ Many of these scholars have linked antidumping laws to attempts by rent-seeking firms to cartelize industries and engage in monopolistic pricing, resulting in job losses, hobbled downstream production and, ultimately, higher prices charged for consumer goods.⁹ Thus, when abused, antidumping laws may potentially inflict economic costs and losses on economies. From a policy and a scholarly standpoint, it is therefore important to understand what incentivizes firms to utilize these policies.

Previous literature identifies a number of theoretical mechanisms within the data-generating process, including real exchange rates, business cycles, and retaliatory dynamics. I offer an alternative take on this literature, focusing on the role of foreign investment and the demand for antidumping protectionism. I propose that countries that are economically integrated into global markets at national levels are less likely to receive requests for antidumping trade remedies. Through a number of processes, I argue that globalized countries that receive and deploy higher volumes of trade and foreign direct investment (FDI) should be less prone to receive petitions for antidumping investigations. Higher volumes of trade and investment over time should signal the emergence of transnational corporations in domestic economies that are competitive internationally and are thus less likely to require additional antidumping trade remedies and protective measures, *ceteris paribus*.

This paper contributes to the growing literature within international political economy that studies the relationship between global value chains (GVCs) and trade policy preferences.¹⁰ The findings indicate that countries with higher degrees of economic integration (in terms of *de facto* trade and investment flows) experience lower likelihood of observing filed petitions for antidumping trade remedies. The results suggest that the structure of production throughout the global political economy affects trade policy preferences among economic actors. This paper thus simultaneously contributes to the antidumping literature by incorporating systemic variables capturing the structure of the global economic structure to analyze prevailing trends in demand for antidumping trade remedies by economic actors. While economic integration appears to be linked with fewer national petition filings, it is plausible to expect a positive feedback loop between antidumping and globalization, where backlashes against globalization may induce enhanced usage of antidumping procedures for protectionist purposes, causing further retreats from economic integration. The structure of this paper proceeds as follows. I first review the existing literature and data on the topic, examining the empirical puzzles within previous work. I then turn to an exposition of my principal theoretical argument before proceeding to my research design and findings.

Antidumping: Why?

While traditional trade barriers have been on the decline in recent decades, antidumping duties have simultaneously been on the rise during the same period of time. Under the World Trade Organization's guidelines, antidumping trade remedies are to be reserved for use in the case that imports have been sold below normal market value and that they have caused material injury to petitioning firms.¹¹ One unique characteristic differentiating these types of trade barriers from traditional barriers to trade is that they are implemented by procedures carried out by civil servants in accordance with national statutes.¹² For example, national petition filings for antidumping investigations in the United States are generally filed with the Department of Commerce and the International Trade Commission (ITC).¹³ Companies that claim injury due to unfair competition and pricing practices (e.g. dumping) may file a petition with the Commerce Department and the ITC. If the plaintiff—the petitioner—has legal standing, then the Commerce Department conducts an investigation for evidence that dumping has

⁸Vandenbussche and Zanardi (2008), (2010).

⁹Messerlin, (1990); McGee, (1992); Pierce, (1999); Irwin, (2015).

¹⁰Blanchard et al. (2016); Bown et al. (2021). Also see Bellemare et al. (2022)

¹¹Messerlin (2004).

¹²Ethier and Fischer (1987).

¹³Irwin (2015), 165–166.

occurred.¹⁴ If Commerce determines that dumping has occurred, the department calculates the “dumping margin,” which is comprised of the difference between the export price of the good and the normal value divided by the export price of the good.¹⁵ The ITC then investigates to determine whether any “material injuries” were sustained by the plaintiff as a result of dumping. If the Commission finds that the plaintiff sustained injuries (alongside an affirmative ruling by Commerce), then the Commerce Department will issue an antidumping trade remedy to offset the damages incurred by dumping (or countervailing duties in the case of foreign subsidies).¹⁶

Previous literature has investigated the proliferation of antidumping trade remedies around the globe. One prominent explanation for these trends revolves around business cycles and macroeconomic fluctuations. According to this literature, these factors—with attention given to the effects of unemployment, GDP Growth, and import growth—stimulate the demand for protectionism.¹⁷ Recessions and economic downturns are said to be characterized by higher demands for protection, whereas import growth should signal higher tides of foreign competition, generating incentives for domestic firms and producers to seek insulation from the global economy.¹⁸ Under these conditions, it is also easier for parties to demonstrate that unfair trade practices have been employed and that material injuries have been sustained as a result. However, these arguments encounter several theoretical and empirical issues. Conceptually, these arguments do not provide an adequate explanation as to why firms would only demand protectionism during recessions and economic downturns when they generally stand to benefit from these policies.¹⁹ Empirically, the data supporting these arguments is mixed.²⁰ Despite their invaluable theoretical and empirical contributions, business cycles and macroeconomic indicators do not fully explain these trends.

Another prominent argument emphasizes retaliatory, “beggar thy neighbor” trade motives throughout the global political economy. In brief, this literature argues that retaliatory motives influence states to adopt antidumping measures against each other.²¹ Feinberg and Reynolds (2006) for example argued that retaliation provided a “significant motive” that has driven the trend toward more frequent utilization of antidumping processes.²² The theoretical logical and empirical evidence marshalled in favor of these arguments is indeed compelling. However, it alone cannot explain this phenomenon. Firms in Country B may petition to initiate antidumping investigations against Country A’s imposed antidumping measures, but this does not explain the initial choice of Country A to impose them—nor does it explain why firms in Country A sought to file petitions initially. Conceptually speaking, the “retaliatory motives” thesis omits the first half of the theoretical process and instead focuses solely on the latter—countries retaliating against the measures imposed on other countries. While retaliatory motives are theoretically significant and empirically salient, they do not explain this initial starting point and thus alone do not explain this phenomenon.

Other literature focuses on the role of exchange rates and currency appreciations in generating demand for protectionism.²³ The exchange rate hypothesis postulates that industries demand

¹⁴Commerce specifically ascertains whether a foreign producer exported goods at prices less than “fair value.” Sales are considered less than fair value if export prices fall below “normal” market value (i.e., if prices charged fall below prices in U.S. markets) (Irwin, 2015, 167–169).

¹⁵*ibid.*, 168.

¹⁶Commission et al. (2008).

¹⁷Knetter and Prusa (2002); Feinberg (2005); Irwin (2005); Jallab, Gbakou, and Sandretto (2008).

¹⁸Cassing, McKeown, and Ochs (1986).

¹⁹Oatley (2010).

²⁰Coughlin, Terza, and Khalifah (1989); Bohara and Kaempfer (1991); Oatley (2010). Some scholars find evidence in support of the business cycle thesis. Bown and Crowley (2013) find support for these arguments. On the other hand, other scholars have found limited evidence. Kim (2013) and Drezner (2014) find little evidence to support the business cycle hypothesis. Also see Rose (2013); Oatley (2015); Lake and Linask (2016).

²¹Debapriya and Panda (2006); Feinberg and Reynolds (2006), (2018); Vandenbussche and Zanardi (2008, 93); Hartigan and Vandenbussche (2013); Upadhayay (2021).

²²p. 877. Also see Vandenbussche and Zanardi (2008), who similarly argue that tit-for-tat retaliatory dynamics “play a crucial role in explaining adoption and in triggering the first use of AD,” concluding in a Prisoner’s Dilemma scenario (93; 129).

²³McKinnon and Fung (1993); Oatley (1997); Niels and Francois (2006); Eichengreen and Irwin (2009); Oatley (2010); Broz and Werfel (2014); Oatley and Galantucci (2015); also see Irwin (2005).

protectionism in accordance with appreciations in currencies and real exchange rates. Thus, exchange rate movements alter the quantity and type of firms that demand protection.²⁴ As Country A's currency appreciates and becomes stronger relative to other currencies, firms in Country A have stronger incentives to file petitions for antidumping investigations. These incentives are produced because appreciations in a nation's currency render its exports more expensive, relative to other competing products on world markets. Firms with products competitive at equilibrium exchange market levels are harmed by appreciations because their products are priced out of foreign markets. Firms further incur harm as foreign imports from abroad generate intense domestic competition. Firms harmed by currency appreciations should therefore be more likely to demand protectionism and file for antidumping petitions, *ceteris paribus*.

This argument has generally received strong support from previous research. Specifically, work elsewhere in the political economy literature demonstrates this empirical pattern with other types of protectionist trade policy. Appreciations in the U.S. dollar in the 1980s were met with increased protectionist pressures as firms demanded insulation from global market forces, with the fall of the dollar's value beginning in 1985 relieving some of these protectionist pressures.²⁵ Similarly, American firms in the 19th century demanded higher tariff rates as the dollar went through a stringent period of appreciation.²⁶ Real exchange rate arguments are therefore useful in explaining why countries adopt antidumping—and protectionism as a whole.

However, recent research reveals some unexplained variation among appreciations in real exchange rates and demand for antidumping protectionism.²⁷ While exchange rates during the 1990s in North America and Europe were relatively stable, the quantity of antidumping petitions initiated by firms varied significantly during the period. In contrast, demand for antidumping petitions in East Asian countries remained flat in the 1990s despite comparatively higher levels of exchange rate appreciation. Similar trends were observed in South Asia and the Middle East. Despite having rigorous theoretical logic and robust empirical support, exchange rate fluctuations do not entirely explain these remaining empirical puzzles.

While each of these theoretical literatures provide invaluable contributions to the literature, they alone cannot account for the propagation of antidumping protectionism. As such, it is probable that other additional forces influence this phenomenon. One such factor is economic globalization itself. While economic globalization can be conceptualized at different levels of analysis,²⁸ it is frequently analyzed at the country, or national, level. Harris (1993) viewed globalization at the national level as the “increasing internationalization of the production, distribution, and marketing of goods and services”.²⁹ Akhter (2004) broadly defined national economic globalization as a process that “results in increasing integration of a country's economy with the rest of the world,” with countries gradually integrating into international market processes via FDI and international trade flows.³⁰ Much of the literature generally accepts that national economic globalization is a multifaceted process of integration involving interconnectedness in terms of FDI flows and international trade.³¹ National economic globalization, therefore, can be understood as a multidimensional process of “global economic integration” (GEI) comprised of international trade and FDI.³²

This definition pairs well with contemporary understandings of the modern global economy. A large share of world trade, production, and investment continues to be structured around intrafirm trade and

²⁴Oatley (2010, 9).

²⁵Irwin (2015, 565); also see Bergsten and Williamson (1983); Grilli (1988).

²⁶Frieden (1997); also see Broz and Frieden (2001).

²⁷Ba and Coleman (2021).

²⁸Bryant and Javalgi (2016)

²⁹p. 760–765.

³⁰284–285.

³¹Rugman (2001), (2010); Ahkter (2004); Rugman and Verbeke (2004).

³²Bryant and Javalgi (2016, 438).

GVCs as countries have gradually integrated within global markets at national levels, steadily embracing de facto flows of trade and foreign investment at national levels.³³ For example, the U.N. estimated in 1996 that roughly one-third of world trade was conducted within transnational corporations.³⁴ The Organization for Economic Co-operation and Development additionally found in 2009 that intrafirm trade accounted for 48 percent of U.S. imports and roughly 30 percent of U.S. exports.³⁵ Much of this intrafirm trade consists primarily of intermediate goods within different nodes of GVCs.³⁶ A large portion of services trade—about 75 percent—is comprised of intermediate inputs.³⁷ De facto trade and capital flows continue to strongly indicate a country's aggregate level of economic integration, and are in part driven by large, domestic firms that operate internationally.

While speculation has occurred as to how GEI has contributed to demand for antidumping trade remedies,³⁸ the growing body of literature has provided comparatively fewer theoretical accounts linking these two phenomena. However, economic integration is clearly a significant mechanism driving outcomes in world politics. Literature elsewhere throughout international relations research emphasizes national economic globalization as a significant force shaping international politics. For example, GEI plays a central role in the development literature,³⁹ and is often implicated as a significant force in controversies over domestic regulatory policies and globalization.⁴⁰ Additionally, many of the non-state actors associated with national economic integration—transnational corporations—are generally viewed as prominent examples of non-state actors that exert considerable influence in world politics, along with NGOs and other non-state groups.⁴¹ Much of the literature elsewhere in international relations scholarship, therefore, emphasizes national economic integration as a crucial mechanism shaping domestic and international political phenomena.

It is likely that de facto national economic integration contributes to the political economy of antidumping protectionism. Excluding these dynamics may therefore misspecify theoretical and empirical models of demand for antidumping protectionism. In this paper, I attempt to integrate these literatures, proposing that countries that are nationally integrated into global markets should experience *less* demand for protectionism. Specifically, higher levels of trade and financial integration—as indicated by trade and investment flows—should reduce the likelihood of antidumping petitions being filed, *ceteris paribus*.

I offer a series of theoretical mechanisms that may plausibly explain this relationship. Higher levels of de facto trade integration may indicate that transnational corporations are becoming sufficiently “internationalized” over time, becoming more competitive in global markets through outsourcing and fragmenting production, which reduces demand for protectionist shielding. Furthermore, as firms become internationalized, they subsequently become fearful of retaliatory antidumping petitions, and refrain from initiating them. On the other hand, higher levels of financial integration may reflect transnational corporations attempting to internalize production and protect trade secrets. This helps mitigate knowledge and technology spillovers and reduces the emergence of foreign competitors, which dampens demand for antidumping protection. Additionally, financial flows may reflect the deployment of “quid pro quo” FDI to defuse potential antidumping duties by producing the final product within a target country. Thus, countries with higher levels of trade and financial flows should receive fewer petitions for antidumping protectionism overall, *ceteris paribus*. I expound on these theoretical mechanisms below.

³³Garrett (2000); De Backer and Miroudot (2014); Cadestin et al. (2018); Anderer et al. (2020); Bown (2020). Also see Caves (1996); Oatley (2018); Bellemare et al. (2022). Jensen et al. (2015) and Eckhardt and Poletti (2016) similarly focus on global value chains and multinational firms within the global economy in their analyses of trade policy preferences.

³⁴UNCTAD (1996).

³⁵Lanz and Miroudot (2011).

³⁶Lanz and Miroudot (2011, 6).

³⁷Miroudot, Lanz, and Ragoussis (2009).

³⁸Bacchetta and Beverelli (2012); Gulotty (2014); Goldstein and Gulotty (2015).

³⁹Pandya (2010); Bhagwati (2007); Bhagwati and Davis (2012); Narula and Pineli (2017).

⁴⁰Porter (1999); Singh and Zammit (2004); Mosley and Uno (2007).

⁴¹Strange (1992); Risse (2007); Gulotty (2014); Babic et al. (2017).

Trade integration and antidumping

Historically, antidumping policy has served as a policy tool to protect domestic producers from unfair trade practices (“dumping”) by foreign producers.⁴² Dumping can take a number of forms. Firms may attempt to expand market shares by discriminating against domestic prices, pricing goods at smaller margins than production costs.⁴³ Exporting firms may also engage in “cyclical dumping,” or the process of exporting goods produced in excess capacity at unusually low prices.⁴⁴ It is often superficially difficult to determine whether firms are engaging in price predation or simply competitively pricing products to compete with rival firms.⁴⁵ Regardless, cheap imports resulting from these trade practices undercut the prices of goods sold by domestic firms to consumers, which cuts into their profits and economic livelihood. This may serve to motivate domestic firms to seek out assistance from government channels.

Antidumping trade remedies provide a means of recourse for injured domestic firms to receive protection from severe import competition. These policies allow for firms to receive vital shielding, protecting the competitiveness of domestic producers and offering consumers alternatives to imported goods. Firms will typically seek out these policy devices primarily when the expected benefits outweigh the costs of filing petitions with bureaucratic apparatus.⁴⁶ Domestic firms struggling to compete with foreign producers may thus demand antidumping trade remedies from their respective governments by filing petitions to request an antidumping investigation and a subsequent trade remedy to be imposed.

Over time, however, domestic firms operating within economically integrated countries may become more competitive producers within the global economy, which reduces their need to acquire additional shielding from excess economic volatility and import competition through antidumping trade remedies.⁴⁷ As discussed above, one primary component of GEI is trade integration, which is in part driven by domestic firms that are large, multinational firms operating within integrated countries.⁴⁸ These firms may offshore production to exploit comparative advantages, deriving efficiency gains and cost advantages from doing so. Previous literature indicates that offshoring and outsourcing provide substantial economic boons and cost advantages to firms.⁴⁹ Offshoring allows for firms to realize expanded economies of scale, allowing for lower per-unit production costs and more efficient overall production, which results in cost savings for offshoring firms and lower prices for consumers.⁵⁰

Outsourcing to exploit regional comparative advantages thus helps transnational corporations become more competitive in global markets, which reduces the necessity for these firms to file petitions for antidumping trade remedies to maintain profits and competitiveness. As these firms become more competitive internationally, nationally integrated economies will be less likely to receive petitions for antidumping investigations. This relationship should be reflected via a country’s level of trade; as primary sources of intrafirm trade, transnational corporations tend to import intermediate goods to utilize within the production processes of a final good. As countries begin the process of integrating with global markets, previous literature indicates that trade could signal significant sources of import competition, which may motivate small domestic firms to file petitions for antidumping trade remedies.⁵¹ However, as firms become internationalized in global markets, trade integration should instead signify the presence of multinational firms that are more competitive internationally. This logic seems to receive support from recent empirical research. Blanchard et al. (2016) and Meckling and Hughes (2017) both find that global companies engaged in outsourcing and offshoring preferred open trade. Bown, Erbahar, and Zanardi (2021) found that domestic value-added growth (DVA) embedded within foreign production networks significantly influenced the probability of removing imposed

⁴²Willig (1998).

⁴³*ibid.*, 61; also see Irwin (2015).

⁴⁴62; also see Bhagwati (1988).

⁴⁵Niels and Francois (2006).

⁴⁶Oatley (2010), 4.

⁴⁷Van Assche and Gangnes (2019).

⁴⁸UNCTAD (1996); Mirodot, Lans, and Ragoussis (2009); Lanz and Mirodot (2011).

⁴⁹Wolf (2004).

⁵⁰Gereffi and Korzeniewicz (1994); Farrell (2005); Rasheed and Gilley (2005); Amity and Wei (2009); Irwin (2015).

⁵¹Feinberg and Reynolds (2007); Ba and Coleman (2021).

antidumping duties. Because these actors are more competitive owing to exploitation of comparative advantages, transnational companies should be less likely to file petitions for antidumping investigations, which should be reflected in aggregate trade and investment flows.

Additionally, transnational corporations headquartered in trade-integrated countries may refrain from initiating investigations for antidumping trade remedies out of concern for motivating retaliatory antidumping duties against final consumer goods. In contrast to small domestic firms, transnational firms have heavier ties to global supply chains, and generally prefer fewer barriers to trade.⁵² International companies are more likely to produce a variety of final products for export in global consumer markets, which allow for these firms to reap profits across product lines. However, the prospect of antidumping measures being imposed on these products introduces costly risks that globalized firms must account for within their strategic calculus, as they may cut into realized profits if measures are imposed. The linkages that transnational corporations share with the global economy may therefore produce incentive for these firms to refrain from filing for antidumping investigations on other potential products in order to minimize these costly risks. This lowers the costs of doing business by reducing the opportunities for governments to impose additional barriers to international trade, which maximizes economic gains for these companies.

This problem is compounded by the fact that transnational corporations frequently utilize intermediate inputs in the production of final consumer goods within GVCs. International trade is in part constituted by intrafirm trade, and internationalized companies drive a significant portion of this trade.⁵³ These international economic processes introduce more potential targets for retaliatory antidumping measures by other countries. These measures may cut into the costs of manufacturing final products for export in consumer markets, which may cause further economic injury to globalized firms.⁵⁴ It is plausible, therefore, that transnational firms may refrain from participating in the antidumping process in order to reduce the likelihood that retaliatory measures may be imposed on intermediate products as well as final consumer goods.

Previous literature lends some credence to these propositions. While previous literature investigated the possibility of cross-national deterrence against retaliatory antidumping enforcement,⁵⁵ recent literature suggests that transnational corporations linked to global markets may strategically act to avoid retaliatory antidumping filings.⁵⁶ Meckling and Hughes (2017) further suggest that transnational corporations operating in the solar photovoltaic industry may prefer open trade due to fears or threats of retaliation along other product lines, which could damage economic profits (232). Avsar (2013) similarly found that AD activities in Brazil lead Brazilian exporting firms to increase export prices for the products of named industries to decrease dumping margins and avoid threats of retaliatory measures by other countries. There is reason to believe, therefore, that firms include the possibility of retaliatory antidumping measures within their strategic calculus. With an expanded variety of final products to export to global consumer markets, the risks of retaliatory measures are higher for internationalized firms, which may decrease the likelihood that these firms file additional petitions for antidumping trade remedy investigations.

A brief case comparison could aid in illustrating this logic. Figure 1 depicts the number of antidumping petitions filed by firms within the United States and South Korea between 1978 and 2015. I select these examples as they are representative cases within the sample that allow me to explore the logic of my theoretical argument.⁵⁷ The United States and South Korea experienced differing levels of aggregate demand for antidumping trade remedies during the sample period. Starting with the United States, it is clear that between 1978 and the early 1990s—the hay day of deindustrialization—U.S. firms filed more petitions for antidumping investigations than in recent times, with a high of ninety-four

⁵²Meckling and Hughes (2017); Van Assche and Gangnes (2019); Wang et al. (2019).

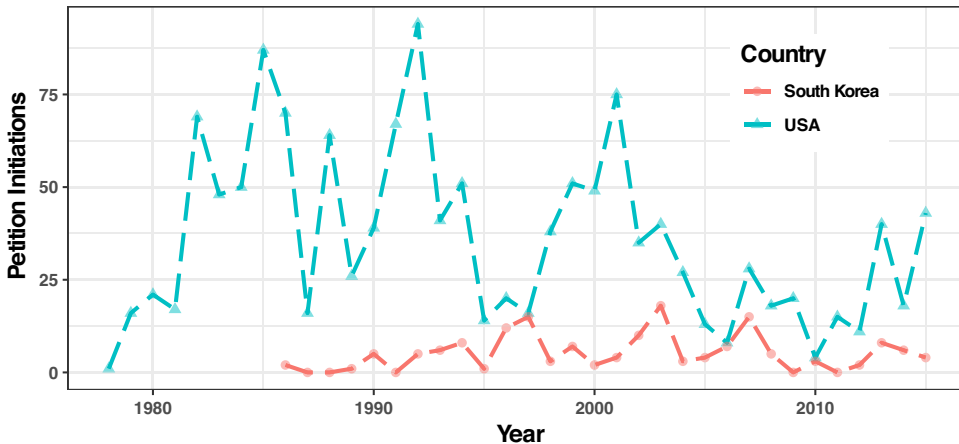
⁵³Gulotty (2014); Lanz and Miroudot (2016); UNCTAD (2018).

⁵⁴Vandenbussche (2008); Kim and Spilker (2019); Wang et al. (2019); Bellora and Fontagné (2020).

⁵⁵Blonigen and Bown (2003); Feinberg and Reynolds (2006); Vandenbussche and Zanardi (2008).

⁵⁶Jensen et al. (2015); Cai et al. (2023).

⁵⁷See Seawright and Gerring (2008, 299).



Created with data from the "Global Antidumping Database" dataset.

Figure 1. Antidumping petitions filed in the United States and South Korea, 1978–2015.

petitions filed during 1992.⁵⁸ During the early 1980s, the U.S. economy experienced a steep recession, which was magnified by fierce import competition from Japanese manufacturers. Many large factory closings in the United States made headlines in the 1980s, including Firestone, Ford, Chrysler, Pabst, and the United States Steel Corporation.⁵⁹ Offshoring and outsourcing may have contributed to these trends via knowledge and technology spillovers, allowing foreign competitors to “leapfrog” up the industrialization ladder and emerge in global markets. Over time, however, United States demand for antidumping protectionism gradually declined. The number of petitions filed sharply decreased following 1992, spiking again to seventy-five petitions filed in 2001 before continuing to decline to comparatively lower amounts of petitions filed within the United States relative to the Cold War era and early 1990s. This may have been the result of U.S. firms becoming sufficiently internationalized. As the United States became integrated into global markets, firms continued to internationalize and became more competitive in global markets, which likely reduced their need for tariff shielding to maintain profits.

In comparison, South Korea—a newly industrialized Asian country that bucked the deindustrialization trend⁶⁰—experienced comparatively fewer antidumping petitions filed overall. South Korea and the other Asian Tigers witnessed dramatic growth rates following the implementation of special economic zones and export-oriented industrialization (EOI) growth policies in the early to mid 1960s under President Park Chung-hee.⁶¹ Liberalization—and EOI growth strategies overall—helped foster massive export booms in South Korea and East Asia, facilitating de facto national trade integration.⁶² In short, South Korea’s export boom and period of industrialization coincided alongside national economic integration.⁶³ At the same time, aggregate demand for antidumping petitions in South Korea generally remained lower in comparison to the United States, with a high of eighteen filed in 2003. Demand for antidumping spiked in 1996–97 during the Asian Financial Crisis and again in 2003 while the Korean economy contracted during the same period. Petitions for antidumping petitions again increased in 2007 as financial meltdown—the “Great Recession”—spread across markets worldwide. For the most part, South Korea managed to weather the financial pandemic. However, fears of a financial meltdown may have caused Korean firms to anticipate oncoming economic troubles,

⁵⁸Plunkert (1990); Ba and Coleman (2021).

⁵⁹*ibid.*, 269.

⁶⁰See Rodrik (2016)

⁶¹Stubbs (1999); Bhagwati (2004); Onaran and Stockhammer (2005).

⁶²Rodrik (1997).

⁶³Initial startup costs to participate in adjudication may have contributed to this as well—see Smith (2004); Allee (2005); Davis and Shirato (2007); Kim (2008); Davis and Bermeo (2009).

triggering a small wave of demand for antidumping protectionism. On the whole, demand for antidumping protectionism tended to remain lower in Korea relative to the United States. This may be a result of high levels of de facto national economic integration and exposure to global markets.

While demand in the United States remained higher compared to demand in South Korea, it gradually tapered off to lower levels following the late 1990s and early 2000s. These variations in demand for antidumping protectionism may be explained by increasing levels of national economic integration and globalization. American firms may have become more efficient and competitive via exploiting shifts in regional comparative advantages to derive cost advantages. By adapting and becoming more competitive in global markets, these firms need not rely on the utilization of domestic antidumping apparatuses to protect profits via protectionist shielding. It seems plausible, therefore, that countries that are sufficiently trade-integrated are less likely to receive petitions for antidumping investigations.

Financial integration and antidumping

Investment and financial flows comprise the other primary element of GEI, which may similarly reduce demand for antidumping trade remedies. I offer two mechanisms that could plausibly explain this relationship. First, while large, domestic corporations that operate internationally frequently outsource to curb production costs, they may also deploy financial capital and internalize production within a wholly owned subsidiary to protect vital intangible assets, which are reflected in a country's FDI flows. Firms may opt to internalize production via vertical and horizontal integration to protect crucial trade secrets, managerial expertise, and other proprietary assets from exploitation via third parties.⁶⁴ While "contracting out" and outsourcing production provide major economic boons, these strategies also often carry long-term costs: they may enable the emergence of foreign competitors that utilize their trade secrets and production knowledge to leapfrog their way up the industrial ladder.⁶⁵ Firms harboring intangible proprietary assets risk having contractees and outsiders utilizing these assets without compensation. By internalizing production, firms can manage to protect intangible assets from intellectual expropriation by third parties.⁶⁶ Preventing these spillover effects may help reduce foreign competition that emerges from use of these proprietary assets, which dampens protectionist demand from these firms and reduces the likelihood that nationally integrated economies receive additional antidumping petitions.

Second, I propose that financial flows in part reduce the demand for antidumping protectionism because it serves as a form of "quid pro quo" FDI. The literature on political economy and protectionism has long documented the notion of "quid pro quo FDI" as a means for firms to avoid the prospects of protectionist trade barriers.⁶⁷ This form of FDI differs from traditional tariff-leaping FDI in that firms are concerned about the possibility of protectionist barriers being erected, rather than attempting to dodge existing trade restrictions.⁶⁸ I similarly argue that flows of foreign investment within nationally integrated economies may reflect attempts made by transnational corporations to co-opt protectionist sentiments, which may reduce aggregate demand for additional antidumping trade remedies. While transnational firms tend to produce a variety of intermediate and final products for export to consumer markets, these products serve as a source of steep import competition for other domestic import-competing firms. This provides a potential source of costly risks for prospective exporting firms; additional imposed antidumping measures will push their export prices upward, which will further cut into sales revenue and profits.⁶⁹ Rather than face these risks, firms may instead opt to

⁶⁴Kumar (1987); Caves (1996); Gattai and Molteni (2007).

⁶⁵Espana (2013); Buss and Peukert (2015); Veer, Lorenz, and Blind (2016).

⁶⁶Inkpen et al. (2019)

⁶⁷Dinopoulos and Bhagwati (1986); Bhagwati (1987); Bhagwati et al. (1987); Zhao, (1996); Blonigen and Feenstra (1997); Belderbos (1997); Holmes et al. (2015); Bai et al. (2020). Also see Sattler and Bernauer (2011), who investigate strategic filing behavior at the WTO.

⁶⁸Brecher and Alejandro (1977); Blonigen et al. (2004).

⁶⁹Wu et al. (2014).

bear the costs of opening up a subsidiary in a target country to avoid costly risks. This additionally provides incentives for firms to cut back on its manipulation of its terms of trade, cutting back their demand for antidumping trade remedies (Blanchard, Bown, and Johnson, 2016).

Because the antidumping process is largely bureaucratic in nature, it is difficult for firms to utilize information derived from a target country's domestic politics to anticipate the likelihood of tariff formation.⁷⁰ Nonetheless, my theoretical argument focuses upon the demand side of the equation—the possibility of firms initiating antidumping petitions. The risk of motivating antidumping protectionism through exports to consumer markets may effectively incentivize firms to purchase a subsidiary or otherwise directly invest in a target market to produce final goods for sale. Firms take these risks into account and instead directly produce final goods within a target consumer market, importing intermediate components from abroad into domestic economies for final production to avoid the prospects of antidumping protectionism being imposed on these goods. This is more likely to be true of large, internationalized firms than of less-experienced firms; owing to more experience and resources available, internationalized firms are more capable of successfully navigating international markets.⁷¹ It therefore follows that foreign investment flows may reflect the efforts internationalized firms to co-opt protectionism, reducing the aggregate number of antidumping petitions filed. From this theoretical argumentation, I derive my core hypothesis:

- *H1*: Countries with higher levels of trade and financial globalization should receive fewer antidumping petitions.

Research design

I employ quantitative statistical analysis to empirically test my argument. Because the dependent variable is count distributed, standard ordinary least squares (OLS) techniques will produce biased and inefficient statistical estimates. The dependent variable also exhibits signs of overdispersion. I therefore employ count modeling techniques, utilizing negative binomial regression to model the overdispersion present within the dependent variable. I opt for fixed effects to account for unit-specific effects in the data. I analyze all available data from the World Bank's Temporary Trade Barriers Database. The TTBD hosts data collected from thirty-three countries between 1978 and 2020. To extend these data to 2022, I utilize aggregate petition filing data available for these countries from the World Trade Organization. In total, the analyses encompass data collected from 33 countries between 1978 and 2022. This sample comprises the entirety of the data available for antidumping petition filings within the Temporary Trade Barriers Database.⁷²

Many of the explanatory and control variables suffer from missing data. One standard approach to issues with missing data involves case-wide deletion, which outright removes data with missing values. However, this technique can induce bias in the estimates produced by model estimation by excluding valuable information about any relationships between variables that are present in the observations deleted.⁷³ Thus, case-wide deletion suffers from unfortunate drawbacks. I therefore employ multiple imputation techniques to control for a wider variety of variables within the empirical model to include a greater variety of control variables within the models. Additionally, these techniques have been utilized within previous research in comparative and international political economy.⁷⁴ I employ these

⁷⁰Grossman and Helpman (1996); also see Kim (2017).

⁷¹Blonigen (2002).

⁷²Bown (2016). While I employ multiple imputation via "Amelia II" in R, there are some issues with using it to impute on the dependent variable. I suspect that these observations are likely not missing at random, which may bias inferences made through the imputation process. For this reason, I opt to work with imbalanced panels, imputed within each series to recover dropped observations in the dataset. Thus, following implementation of multiple imputation techniques, there are 922 observations total.

⁷³Honaker et al. (2011).

⁷⁴For example, see Lall (2016); Ba and Coleman (2021).

Table 1. Missing data summary

Variable	Data Missing	Data Total
Trade Globalization	106	816
Financial Globalization	106	816
Inward Stock	32	890
Outward Stock	73	849
Exports	89	833
Imports	89	833
Retaliation	269	653
REER	15	907
Democracy	165	757
GDP Growth	54	868
Total Annual Imports	223	699
Import Growth	106	816
Unemployment	131	791
CIM	421	501
Economic Crisis	289	633

techniques with the “Amelia” package in R. I employ twenty imputations of the data. A summary of missing data is included in Table 1. I include all summary statistics in the Appendix as well in Table A8.

Autocorrelation is present within the antidumping petitions data.⁷⁵ However, technical difficulties emerge with modeling both autocorrelation and overdispersion simultaneously. This is particularly prevalent when utilizing software to apply multiple imputation techniques; available options for modeling poisson and negative binomial autoregressive models with time series cross-sectional imputed data are nonexistent.⁷⁶ I therefore opt for trade-offs. I employ an autoregressive poisson model in the Appendix to check for robustness in key variables across model specifications that account for autocorrelation. Due to software limitations in terms of performing imputation as well as estimating multiple imputation autoregressive-count models, this model utilizes the base model within the unimputed dataset.

Dependent variable

I measure aggregate antidumping petition initiations filed using data collected from the Global Antidumping Database (GAD), which is hosted under the World Bank’s Temporary Trade Barriers Database (TTBD).⁷⁷ This data includes information on all 33 countries included within the GAD. Table A5 in the Appendix provides details on the countries included within the sample. The sample series for each country begins with the first year they appear in the database.⁷⁸ I extend the data series to 2022 with aggregate petition filings data from the World Trade Organization. I opt to focus primarily on aggregate antidumping petition initiations, as they provide a clear and direct measure of firm demand for antidumping trade remedies. I produce this measurement by manually aggregating the

⁷⁵See Drukker (2003).

⁷⁶I am additionally unable to include any AIC/BIC model fitness statistics due to software/data limitations.

⁷⁷See Signoret et al. (2020). The GAD contains details on about 95 percent of antidumping cases filed between 1978 and 2020.

⁷⁸For example, Jamaica first appears in the GAD in 2000. Thus, its series begins in 2000 within my analyses.

quantity of petitions filed by firms within countries per country-year.⁷⁹ This measurement is preferred to other measurements (e.g. imposed duties) as it offers a more direct measure of firm demand for antidumping trade remedies. I additionally check for robustness in the findings across model specifications by relying on a measure of imposed trade remedies, which is also hosted within the World Bank's Temporary Trade Barriers Database.

Independent variables

• *Trade Globalization*—To construct my first set of primary explanatory variables, I first collect trade globalization data from the KOF Index of Globalization. KOF dichotomizes between de jure and de facto measures of trade globalization. I opt to collect the de facto measure of trade globalization, as it best empirically captures the substance of my theoretical argument. These values are further specified as lagged variables within the imputation algorithm. KOF's de facto trade indicator measures trade globalization as the “exchange of goods and services over long distances” and is computed via exports and imports of goods and services as a share of GDP.⁸⁰ KOF's measure relies primarily on principle component analysis to measure each weight utilized in the process of constructing the variable. This measurement is preferred to other measurements of de facto trade, as it accounts for geographical distributions of linkages in real trade in goods by measuring trade partner diversity. This provides an added benefit to utilizing this data in that it measures the extent to which countries are globally oriented toward trade in international markets as opposed to trade in regional markets.⁸¹ This choice of measurement is also supported by previous literature.⁸² “Trade Globalization” is measured on an interval from 0 to 100. Scores closer to 100 indicate higher levels of de facto trade globalization, whereas lower scores indicate lower levels of de facto trade globalization.⁸³

• *Financial Globalization*—I measure aggregate financial integration by similarly collecting financial globalization data from the KOF Index of Globalization.⁸⁴ This variable is a quantity-based measure and is constructed by measuring “capital flows and stocks of foreign assets and liabilities”.⁸⁵ This variable further includes measurements of FDI, portfolio investments, international debt, and international reserves, which are calculated as “the sum of stocks of assets and liabilities and normalized by GDP”.⁸⁶ Furthermore, this measurement includes information about relative positions within the international financial system for a large swath of countries.⁸⁷ Similar to the trade globalization measurement, KOF's measure primarily utilizes principle component analysis to measure each weight employed in the process of developing the indicator. As such, I prefer this indicator to other measures of financial globalization as it is the most comprehensive measure of real capital stocks and assets,

⁷⁹Petitions for antidumping investigations may be filed against multiple countries by a single country. I treat these petitions as individual cases, as these are separate instances of firms directly demanding antidumping trade remedies from domestic governments. Recent research has also employed this approach—see Ba and Coleman (2021). Also see Upadhayay (2021) for a similar approach.

⁸⁰See Gygli et al. (2019). Specifically, this variable is computed as the sum of imports and exports of goods and services as a share of GDP, along with a measurement of the degree of trade partner diversification in goods trade (13). Diversification is further generated by computing the inverse of the average Herfindahl–Hirschman trade partner concentration index for imports and exports of goods (13). Countries with more dispersed trade over different trade partners are scored higher on the index.

⁸¹*ibid.*, p. 10.

⁸²Gamze et al. (2019); Jha and Gozgor (2019); Haelg (2020); Bergh and Kärrnä (2021).

⁸³I additionally employ a model utilizing the squared term of this variable to check for non-linear effects in the data in the Appendix.

⁸⁴Similar to the above measurement, these are also contemporaneous values that are specified as lagged variables within the imputation algorithm.

⁸⁵(*ibid.*, p. 10–11).

⁸⁶(*ibid.*, p. 11).

⁸⁷Specifically, this is a quantity-based measure of financial globalization. KOF computes this measurement based on the following variables: the sum of stocks of assets and liabilities of foreign direct investments (share of GDP), the sum of liabilities and assets of international equity portfolio investments as a share of GDP, the sum of assets and liabilities of international equity portfolio investments as a share of GDP, the sum of inward and outward stocks of international portfolio debt securities and bank loans and deposits as a share of GDP and international reserves (excluding gold) as a share of GDP (Gygli et al. (2019), 13–14). KOF also includes the sum of primary income payments and receipts as a share of GDP (*ibid.*, 13–14).

reflecting the extent to which economies are financially integrated within the global economy. This modeling choice is also supported by previous literature.⁸⁸ “Financial Globalization” is measured on an interval from 0 to 100. Scores closer to 100 indicate higher levels of de facto financial globalization, whereas lower scores indicate lower levels of de facto trade globalization.

- *FDI Stock Outflows*—To construct my second set of primary explanatory variables, I collect FDI stock outflow data from UNCTAD’s Foreign Direct Investment Database. This measure captures the percentage of FDI stock in a country’s GDP and is “the value of capital and reserves attributable to a non-resident parent enterprise”.⁸⁹ This measure is preferred as it measures the accumulation of capital deployed by investors over time. As such, this measure should capture the entrenchment of foreign investment within host economies as well as its level of importance overall, as it measures the role foreign capital investment has played within a host country’s economy over time. Additionally, this measurement has been employed by previous scholarship.⁹⁰ I expect a negative coefficient for this variable. I additionally employ a natural log transformation of this variable to check for robustness, which can be found in the Appendix.⁹¹

- *FDI Stock Inflows*—I similarly construct stock inflows using data from UNCTAD’s Foreign Direct Investment Database. This measure also captures the percentage of FDI stock in a country’s GDP.⁹² As with stock outflows, this measure is similarly preferred to other measures as it measures the accumulation of capital invested over time.⁹³ I expect a negative coefficient for this variable. As with FDI outflows, I employ an additional model estimating antidumping petitions utilizing a natural log transformation of this variable to check for robustness across model specifications in the Appendix. I additionally specify these variables as lags within the imputation analyses.

- *Trade*—To construct my third set of primary explanatory variables, I collect trade data from the World Bank’s World Development Indicators Database. “Exports” captures a country’s annual exports of goods and services as a percentage of its GDP, whereas “Imports” measures a country’s yearly imports of goods and services as a percentage of its GDP. I employ both of these variables as alternative specifications of a country’s degree of integration within global markets.⁹⁴ I expect a negative coefficient for both of these variables.⁹⁵

Other control variables

- *Real Exchange Rates*—Previous literature implicated real exchange rate movements as a theoretically significant determinant of the quantity of aggregate antidumping petitions filed. Omitting exchange rate movements may risk misspecifying theoretical and empirical models of antidumping protectionism, increasing the risks of wrongly attributing statistical estimates to incorrect causal factors. I therefore control for movements in real exchange rates. This data is collected from Bruegel’s real effective exchange rate (REER) database.⁹⁶ Bruegel’s data contains CPI-adjusted exchange rate data for 178 countries for the period 1960–2018. I expect this variable to be positively associated with higher likelihood of petition initiations being filed during a given country-year.

- *Retaliatory Motives*—The retaliatory motives literature implicates tit-for-tat trade dynamics as a primary determinant of gross antidumping petitions and measures imposed (Feinberg and Reynolds, 2018). To avoid mistakenly attributing changes in antidumping petitions filed to my primary explanatory variables, I include “Retaliation” to control for retaliatory dynamics. This measure is generated by aggregating the number of petitions filed against each country by every other country

⁸⁸Bataka (2019); Haelg (2020); Aluko and Opoku (2022).

⁸⁹UNCTAD (2018).

⁹⁰Mihalache-O’Keef and Li (2011); Sorens and Ruger (2014); Mihalache-O’Keef (2018).

⁹¹Powers and Choi (2012); also see Abadie and Gardeazabal (2008).

⁹²UNCTAD (2018).

⁹³Mihalache-O’Keef and Li (2011); Sorens and Ruger (2014); Mihalache-O’Keef (2018).

⁹⁴I specify the contemporaneous value of these variables as lags within the imputation model.

⁹⁵I also employ an additional model utilizing squared terms in the Appendix to check for non-linear effects.

⁹⁶Darvas (2012).

collected in the GAD across the sample series. Additionally, this measurement has been utilized by previous research.⁹⁷ I expect a positive coefficient for this variable.

- *Regime Type and Institutional Quality*— IPE scholarship traditionally emphasizes the role of regime type in affecting the extent to which countries adopt freer trade or protectionist policies.⁹⁸ Regime type may exhibit a multiplicity of effects on the aggregate number of antidumping petitions filed during a given country-year. Specifically, democracies may be more strongly associated with lower tariffs because they take a larger range of interests into account when crafting trade policy. Additionally, democratic regimes may signal presence of stronger domestic institutions. I measure “Democracy” using the data collected from the Polity IV Project’s database.⁹⁹ I specifically employ the database’s “polity2” variable. The polity2 variable measures a country’s “Polity Score,” which ranges on an interval between –10 and 10. Scores between –10 and –6 are considered autocratic regimes; scores between 6 and 10 are considered democracies. I expect negative coefficients for this variable.

I also employ a measure of private property rights protection to further assess institutional quality across model specifications. “Contract-Intensive Money” measures the level of property rights enforcement within a country. Contract-intensive money refers to “the ratio of non-currency money to the total money supply, or $(M_2 - C)/M_2$, where M_2 is a broad definition of the money supply and C is currency held outside banks”.¹⁰⁰ This variable is measured on an interval between 0 and 1, with scores closer to 1 indicating stronger enforcement of private property rights.¹⁰¹ I similarly expect negative coefficients for these variables.

- *Import Growth*—“Import Growth” is defined simply as the annual percent change in imports during a given country-year. Higher percentages of foreign import growth may trigger additional demand for trade remedies during a given country-year due to short-term economic distress. Omitting this variable runs the risk of wrongly attributing changes in antidumping petitions filed to my primary explanatory variables when they are instead more significantly associated with import competition.¹⁰² I collect this data from the World Bank’s “World Development Indicators.” Pursuant to previous literature, I expect a positive coefficient for this variable.

- *GDP Growth*—Some scholarship emphasizes the role of business cycles in affecting the demands for protectionism. Theoretically, measuring fluctuations in GDP growth could capture cyclical economic downturns within an economy. I thus include “GDP Growth” to account for mechanisms related to business cycles. Declining GDP growth may signal the onset of an economic recession during a given country-year. I collect this data from the World Bank’s “World Development Indicators.” It is specifically operationalized as the percent change in annual GDP (current international dollars). I expect a negative coefficient for this variable.

- *Unemployment*—Alternatively, fluctuations in unemployment rates may also signal the onset of business cycles. “Unemployment” is therefore included to check for robustness across model specifications. Unemployment rates may capture this factor by measuring drops in employment, which may result from periodic economic recessions. This is operationalized specifically as the percent of the civilian labor force actively seeking employment. I collect this data from the World Bank’s “World Development Indicators.” Theoretically, I expect higher rates of unemployment to be positively associated with stronger demand for antidumping protectionism.

- *Economic Shocks*—I include a measure to capture economic and financial crises within the model, which may influence national filing patterns. Short-term financial crises may influence decisions to file for antidumping investigations, which may influence national filing patterns. “Economic Crisis” is a dichotomous variable that captures systemic economic and financial shocks occurring within a given country. This variable receives a value of 1 if a jarring financial shock occurred within a country during

⁹⁷Ba and Coleman, (2021); also see Signoret et al. (2020).

⁹⁸Mansfield, Milner, and Rosendorff (2000); Milner and Kubota (2005).

⁹⁹Marshall, Gurr, and Jagers (2020).

¹⁰⁰Clague et al. (1999, 188).

¹⁰¹This measurement has also been widely employed through various literatures in international relations. See Johnson, Souva, and Smith (2013); Crabtree and Fariss (2015); Graham and Tucker (2019).

¹⁰²Oatley (2010, 11)

a given year, and 0 if otherwise. I construct this variable with data collected from the “Behavioral Finance and Financial Stability” dataset, which is hosted by the Harvard Business School.¹⁰³

Results

Table 2 displays the parameter estimates derived from Models 1 to 5. I derive exponentiated coefficients to report substantive effects within the data. Model 1 estimates the effects of de facto trade globalization and financial globalization on aggregate petitions filed, controlling for retaliatory motives, real exchange rate appreciations, regime type, and a host of macroeconomic control variables. Models 2 and 3 estimate the effects of trade flows on aggregate petitions filed, controlling again for retaliatory motives, real exchange rate appreciations, regime type, and macroeconomic controls. Finally, Models 4 and 5 incorporate FDI stock outflows and inflows while including the previous controls within the model specification.

Overall, the models indicate a series of consistent statistical relationships. First, across the models, national economic integration has a consistent negative and statistically significant effect on the aggregate number of antidumping petitions filed, holding all else equal. Model 1 provides one exception to these statistical relationships, with “Trade Globalization” receiving stronger empirical support than “Financial Globalization” in the results. This may suggest that de facto trade integration impacts petition filing patterns significantly more than de facto financial integration. However, a post-estimation test for joint significance indicates that both variables are jointly significant in the model ($p < .001$). Second, the “retaliatory motives” argument receives significant and robust support across all five models, with the effects of retaliation being consistently positive and statistically significant. Third, the “real exchange rates” hypothesis receives strong empirical support in the models, which is consistent with existing literature that relies on smaller country samples. The effects of exchange rate appreciations are consistently positive and statistically significant across each model. Fourth, a country’s regime type does not seem to be significantly associated with the likelihood of petitions being filed at traditional levels of alpha. Finally, the macroeconomic controls are generally not significantly associated with petition filings at traditional levels of alpha.

Turning to Model 1, we can see that “Trade Globalization” is negatively associated with the number of petitions filed, and is statistically significant ($p < 0.05$). Countries that were trade-integrated experienced about a 1.7 percent decrease in the incidence rate of a petition being filed. Countries with higher levels of de facto trade were less likely to receive petitions for antidumping investigations during a given country-year. As mentioned above, “Financial Globalization” does not meet traditional levels of statistical significance in the model, but a post-estimation test for joint significance indicates that it is jointly significant with “Trade Globalization” ($p < .001$) in the model, lending credence to the theoretical hypotheses developed here. This may provide evidence that trade integration impacts petition filing processes more significantly than financial integration. The model returns positive coefficients for both “Retaliation” and “REER,” which are statistically significant ($p < 0.05$). Countries that experienced retaliatory motives and currency appreciations were more likely observe demand for additional antidumping protectionism, lending support to hypotheses developed in previous scholarship.

Models 2 and 3 illustrate a similar empirical story, estimating the effects of a country’s exports and imports (as a share of GDP) on national petition filings. The models indicate that “Exports” and “Imports” are negatively associated with the number of petitions filed, and are significant at traditional levels of alpha ($p < 0.05$). The incidence rate of an antidumping petition decreases in both models by about 1.2 percent and 1.1 percent, respectively. Countries experiencing higher volumes of exports and imports were less likely to observe additional antidumping petitions filed during the sample period. Similar to Model 1, “Retaliation” and “REER” are positively associated with the number of antidumping petitions filed, and are statistically significant at traditional levels of alpha ($p < 0.05$).

Models 4 and 5 incorporate variables measuring a country’s inflows and outflows of FDI capital stock. “Stock Outflows” and “Stock Inflows” are both negatively associated with national petition filings, and are

¹⁰³Reinhart and Reinhart (2015).

Table 2. Models 1–5: Negative binomial models, fixed effects—antidumping petitions, 1978–2022—KOF indices, FDI stock flows, trade (percent of GDP)

	Model 1	Model 2	Model 3	Model 4	Model 5
Tr. Globalization (Lagged)	-.010* (.003)	.	.	.	.
Fin. Globalization (Lagged)	-.003 (.002)	.	.	.	.
Exports	.	-.012* (.003)	.	.	.
Imports	.	.	-.011* (.003)	.	.
Stock Inflows	.	.	.	-.005* (.002)	.
Stock Outflows	.	.	.	.	-.006* (.002)
Retaliation	.013* (.004)	.012* (.004)	.012* (.003)	.011* (.005)	.013* (.004)
REER	.004* (.001)	.004* (.001)	.005* (.001)	.005* (.001)	.005* (.001)
Democracy	-.003* (.011)	-.006 (.010)	-.005 (.001)	.001 (.011)	.003 (.011)
GDP Growth	-.003 (.013)	.003 (.014)	.002 (.014)	-.002 (.013)	-.005 (.013)
Import Growth	-.003 (.003)	-.003 (.003)	-.003 (.003)	-.003 (.004)	-.002 (.003)
Economic Crisis	.001 (.110)	.039 (.112)	.021 (.112)	-.034 (.121)	-.045 (.120)
Constant	.557 (.242)	.271 (.209)	.189 (.210)	-.046 (.185)	-.064 (.184)
N	922	922	922	922	922

Standard errors in parentheses.

Parameter estimates reported in the table.

* $p < 0.05$.

statistically significant at traditional levels of alpha ($p < 0.05$). The models again return positive coefficients for “Retaliation” and “REER,” which are statistically significant at traditional levels ($p < 0.05$), providing robust support for these hypotheses. Models 4 and 5 thus indicate that countries experiencing higher levels of FDI stock flows also observed fewer petitions filed throughout the sample period. Finally, Table A2—located in the Appendix—displays the findings from the models employing natural logs and squared terms of FDI stock flows and trade flows, respectively. Intriguingly, the results are divergent across both de facto trade and financial integration. While the models employing squared terms for de facto trade integration do not indicate the presence of significant non-linear effects, the models employing natural log transformations of both inward and outward FDI stock flows seem to be capturing these effects ($p < 0.05$). While further investigation of this empirical puzzle falls outside the current scope of this paper, the jarring nature of these findings warrants further inquiry in future research.

Table 3 displays the results from Models 6 to 10, replacing petition initiations with final petitions imposed as the outcome of interest. Model 6 estimates final petition impositions utilizing both “Trade Globalization” and “Financial Globalization,” controlling for retaliatory motives, real exchange rates, regime type, and the macroeconomic measurements. Models 7 and 8 include “Exports” and “Imports,” including the previous control variables. Models 9 and 10 estimate granted trade remedies utilizing “Stock Inflows” and “Stock Outflows,” retaining the previous specification of control variables.

Similar to the findings reported in Table 2, the model results reported in Table 3 illustrate a series of consistent relationships. Throughout the models, the employed indicators of de facto economic integration appear to be negatively correlated at traditional levels of statistical significance ($p < 0.05$), with the exception of “Financial Globalization.” Model 6 therefore may suggest that de facto trade integration impacts trade remedy production along with initial filing patterns more significantly than financial integration. I similarly employ a post-estimation test for joint significance, finding that both trade and financial integration are jointly significant in Model 6 as well ($p < .001$). The “retaliatory motives” and real exchange rate hypotheses receive significantly robust support across each model in Table 3, with both measurements being consistently positively and significantly correlated with the likelihood of trade remedies being granted. For the most part, regime type explanations do not receive

Table 3. Models 6–10: Negative binomial models, fixed effects—antidumping petitions imposed, 1978–2022

	Model 6	Model 7	Model 8	Model 9	Model 10
Tr. Globalization (Lagged)	−.010* (.004)	.	.	.	.
Fin. Globalization (Lagged)	−.0005 (.003)	.	.	.	.
Exports	.	−.010* (.003)	.	.	.
Imports	.	.	−.007* (.004)	.	.
Stock Inflows	.	.	.	−.007* (.002)	.
Stock Outflows	.	.	.	.	−.011* (.002)
Retaliation	.015* (.006)	.015* (.006)	.015* (.006)	.014* (.006)	.017* (.006)
REER	.007* (.001)	.007* (.001)	.007* (.001)	.008* (.001)	.007* (.001)
Democracy	.019 (.016)	.019 (.015)	.020 (.015)	.029 (.016)	.035* (.016)
GDP Gr.	.051* (.017)	.053* (.017)	.052* (.017)	.046* (.017)	.041* (.017)
Import Gr.	−.010* (.004)	−.009 (.004)	−.009* (.004)	−.010* (.004)	−.009 (.004)
Economic Crisis	.155 (.140)	.174 (.140)	.165 (.140)	.075 (.148)	.033 (.147)
Constant	−.613* (.312)	−.850* (.260)	−.975* (.265)	−1.00* (.233)	−1.07* (.229)
N	922	922	922	922	922

Standard errors in parentheses.

Parameter estimates reported in the table.

* $p < 0.05$.

much empirical support in Models 6–10, with the exception of Model 10 ($p < 0.05$). The macroeconomic controls included in each model also receive a strong amount of robust empirical support from the results reported in Table 3. “GDP Growth” is positively and significant correlated with the likelihood of a trade remedy being granted by a government ($p < 0.05$) across each model, indicating that the onset of business cycles play a role in the production of finalized antidumping policies. The overall findings from these models are striking, given that this measure of antidumping trade policy focuses on supplied policies, rather than aggregate petition filings per say. Globalization—as measured in terms of de facto trade and financial integration—appear to significantly affect the process of trade remedy production within domestic institutions. However, to provide a full explanation of these findings, this would require developing a theory of bureaucratic decision-making, which lies outside the scope of this paper. I thus leave these questions for future research to address.

Conclusion

What factors drive demand for antidumping trade remedies? In this paper, I proposed that countries that are nationally integrated into global markets should be associated with less demand for antidumping trade remedies. In particular, countries with multinational firms deploying higher volumes of trade and FDI will be less likely to observe demand for trade remedy policies overall. Trade and investment flows possibly reflect the preferences of emergent competitive transnational companies that require fewer antidumping services from governments, thus being less likely to file for antidumping investigations. The results demonstrate that the structure of economic production and integration within global economic processes affect the composition of trade policy preferences among economic actors. In doing so, this paper also contributes to the antidumping literature by incorporating systemic variables capturing the structure of the global economic structure to analyze prevailing trends in demand for antidumping trade remedies by economic actors. I investigated this argument with an analysis of antidumping petition data collected from over thirty countries between 1978 and 2022, finding evidence in support of this argument. I also find additional evidence in support of exchange rate arguments and retaliatory motives, along with limited evidence for macroeconomic determinants.

While economic integration has thus far been shown to be associated with dampened demand for antidumping protectionism, these globalization mechanisms may induce further retreats from economic integration in the future. With emergent backlashes against globalization, it is possible that economic integration could serve to generate feedback dynamics, which produces further demand for antidumping trade remedies and further retreats from global markets. The ongoing trade disputes between the United States and the European Union resulting from green industrial policies may serve as a direct example of these possibilities.¹⁰⁴ While national economies have gradually become more integrated over time, the possibility of a retreat from economic globalization remains plausible.

Future research can improve upon these findings in a number of ways. First, analyzing the determinants of antidumping protectionism via a dyadic framework would be instrumental for a clearer inquiry into the matter. For example, this would allow for a clearer inquiry as to precisely which firms are motivated to demand additional antidumping protectionism due to exchange rate appreciations. Additionally, an analysis of dyadic trade and financial stock data would allow for future scholars to check for specific effects across pairs of countries within the data sample.

Finally, future research should attempt to formulate the role of bureaucratic politics in driving the “supply-side” portion of the antidumping policy process. This paper primarily provides assesses the “demand-side” element, focusing on what factors drive demand for additional antidumping protectionism. While I find little evidence here to suggest that domestic political institutions have any significant effects on antidumping petition initiations, they may play a role in the bureaucratic apparatus that supplies the final imposed measures.

Despite the limitations arising from the data in the study, the models employed demonstrated a clear relationship between indices of national de facto economic integration and antidumping petition filings. Namely, that higher levels of FDI stock outflows appear to be negatively correlated with the propensity for firms to initiate antidumping investigations. I also replicated the findings produced by existing literature on other prominent explanations for the proliferation of antidumping laws around the globe. The question of whether antidumping laws are a desirable policy or not lies outside the scope of this paper, and remains a pressing question for future research.

Competing interests. The author declares none.

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¹⁰⁴See Dur et al. (2020); Casert (2023).

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Appendix A: Models and data summaries.

Table A1. Models 1–5: Negative binomial models, fixed effects—antidumping petitions, 1978–2022—KOF indices, FDI stock flows, trade (percent of GDP), substituting GDP for unemployment rates

	Model 1	Model 2	Model 3	Model 4	Model 5
Tr. Globalization (Lagged)	–.010* (.003)	.	.	.	.
Fin. Globalization (Lagged)	–.004 (.003)	.	.	.	.
Exports	.	–.012* (.003)	.	.	.
Imports	.	.	–.011* (.003)	.	.
Stock Inflows	.	.	.	–.006* (.002)	.
Stock Outflows	.	.	.	.	–.007* (.002)
Retaliation	.013* (.004)	.013* (.004)	.012* (.004)	.012* (.004)	.014* (.004)
REER	.004* (.001)	.004* (.001)	.005* (.001)	.005* (.001)	.005* (.001)
Democracy	–.004 (.011)	–.007 (.010)	–.006 (.010)	.00008 (.010)	.003 (.011)
Unemployment	.016 (.009)	.011 (.008)	.011 (.008)	.017 (.009)	.015 (.008)
Import Gr.	–.003 (.002)	–.002 (.002)	–.002 (.002)	–.003 (.002)	–.003 (.002)
Economic Crisis	–.015 (.110)	.026 (.111)	.008 (.111)	–.055 (.121)	–.056 (.119)
Constant	.464 (.242)	.191 (.218)	.106 (.219)	–.166 (.189)	–.187 (.190)
N	922	922	922	922	922

Standard errors in parentheses.

Parameter estimates reported in the table.

* $p < 0.05$.**Table A2.** Models 1–5: Negative binomial models, fixed effects—antidumping petitions, 1978–2022, replacing polity with contract-intensive money

	Model 1	Model 2	Model 3	Model 4	Model 5
Tr. Globalization (Lagged)	–.0103* (.003)	.	.	.	.
Fin. Globalization (Lagged)	–.004 (.003)	.	.	.	.
Exports	.	–.012* (.003)	.	.	.
Imports	.	.	–.011* (.003)	.	.
Stock Inflows	.	.	.	–.006* (.002)	.
Stock Outflows	.	.	.	.	–.007* (.002)
Retaliation	.0139* (.004)	.013* (.004)	.013* (.004)	.012* (.004)	.014* (.004)
REER	.004* (.001)	.004* (.001)	.005* (.001)	.005* (.001)	.005* (.001)
CIM	–.084 (.889)	–.115 (.866)	–.237 (.868)	–.325 (.854)	–.045 (.884)
Unemployment	.016 (.009)	.011 (.009)	.011 (.009)	.017 (.009)	.015 (.009)
GDP Growth	–.001 (.013)	.004 (.014)	.003 (.013)	–.001 (.013)	–.005 (.013)

(Continued)

Table A2. (Continued)

	Model 1	Model 2	Model 3	Model 4	Model 5
Import Growth	−.003 (.003)	−.003 (.003)	−.003 (.003)	−.003 (.004)	−.002 (.004)
Economic Crisis	−.014 (.111)	−.037 (.111)	.017 (.111)	−.057 (.123)	−.64 (.121)
Constant	.367 (.745)	.212 (.735)	.245 (.737)	−.117 (.739)	−.167 (.192)
N	922	922	922	922	922

Standard errors in parentheses.
 Parameter estimates reported in the table.
 * $p < 0.05$.

Table A3. Negative binomial models, fixed effects—1978–2022—antidumping petitions, 1978–2022—squared trade and logged FDI

	Model 1	Model 2	Model 3	Model 4	Model 5
Tr. Globalization	−.025* (.012)	.	.	.	.
Tr. Globalization (Squared)	.0001 (.0001)	.	.	.	.
Exports	.	−.019** (.008)	.	.	.
Exports (Squared)	.	.00006 (.00007)	.	.	.
Imports	.	.	−.017* (.009)	.	.
Imports (Squared)	.	.	.00006 (.0001)	.	.
Stock Inflows (Logged)	.	.	.	−.099** (.045)	.
Stock Outflows (Logged)	.	.	.	.	−.064** (.032)
Retaliation	.012** (.004)	.013** (.005)	.012** (.004)	.012** (.004)	.013** (.005)
REER	.004** (.001)	.004** (.001)	.005** (.001)	.005** (.001)	.005** (.001)
Democracy	−.006 (.011)	−.005 (.011)	−.003 (.011)	.0006 (.011)	.001 (.011)
GDP Growth	.003 (.014)	.004 (.014)	.002 (.013)	−.0006 (.013)	−.001 (.013)
Import Growth	−.004 (.004)	−.004 (.004)	−.003 (.003)	−.003 (.004)	−.003 (.004)
Economic Crisis	.008 (.109)	.022 (.113)	.004 (.114)	.004 (.112)	.004 (.113)
Constant	.739** (.346)	.384 (.241)	.276 (.248)	.075 (.211)	−.102 (.183)
N	922	922	922	922	922

Standard errors in parentheses. Parameter estimates reported in the table. ** $p < 0.05$, * $p < 0.1$.

Table A4. Antidumping petitions filed, 1978–2022—negative binomial models, fixed effects: exports, imports, and FDI indicators

	Model 1
Exports	−.020** (.008)
Imports	.011 (.009)
Stock Outflows	−.006* (.003)
Stock Inflows	.0001 (.003)

(Continued)

Table A4. (Continued)

	Model 1
Retaliation	.015** (.005)
REER	.004** (.001)
Democracy	-.001 (.011)
Unemployment	.013 (.009)
GDP Gr.	-.001 (.014)
Import Gr.	-.003 (.004)
Economic Crisis	-.026 (.125)
Constant	.167 (.222)
N	922

Standard errors in parentheses.

Parameter estimates reported in the table.

** $p < 0.05$, * $p < 0.1$.

Note: high levels of collinearity in the model.

Table A5. Autoregressive Poisson model: 1978–2022

	Model 1	Model 2	Model 3	Model 4	Model 5
Tr. Globalization	-.027* (.004)	.	.	.	.
Fin. Globalization	-.016* (.003)	.	.	.	.
Exports	.	-.040* (.005)	.	.	.
Imports	.	.	-.039* (.005)	.	.
Stock Inflows	.	.	.	-.017* (.004)	.
Stock Outflows	.	.	.	.	-.006 (.004)
Retaliation	.024* (.008)	.022* (.008)	.022* (.008)	.025* (.008)	.035* (.008)
REER	.001 (.002)	-.0006 (.002)	.0004 (.002)	.003 (.002)	.004* (.002)
Democracy	.110* (.031)	.031 (.028)	.046 (.029)	.128* (.032)	.136* (.034)
Unemployment	.012* (.009)	.004 (.009)	.001 (.009)	.016 (.009)	.010 (.009)
GDP Growth	.009 (.025)	.016 (.023)	.018 (.023)	.025 (.024)	.019 (.025)
Import Growth	-.004 (.006)	-.004 (.006)	-.002 (.006)	-.012 (.007)	-.008 (.007)
Economic Crisis	-.602* (.193)	-.445* (.189)	-.524* (.180)	-.547* (.205)	-.480* (.211)
Rho	.371* (.037)	.493* (.041)	.500* (.040)	.556* (.041)	.553* (.041)
Constant	2.80* (.422)	3.09* (.416)	2.85* (.421)	1.21* (.412)	.738 (.399)
Adjusted R^2	0.37	0.39	0.39	0.40	0.40
N	379	379	379	370	366

Standard errors in parentheses.

Parameter estimates reported in the table.

* $p < 0.05$.

Table A6. Countries and years included in regression models

Country	Start Year	End Year
Argentina	1989	2022
Australia	1989	2022
Brazil	1988	2021
Canada	1985	2022
Chile	1995	2020
China	1997	2022
Colombia	1991	2020
Costa Rica	1996	2016
Ecuador	1998	2010
European Union	1980	2022
India	1992	2022
Indonesia	1996	2020
Israel	1991	2017
Jamaica	2000	2010
Japan	1991	2021
Malaysia	1995	2021
Mexico	1987	2022
New Zealand	1995	2022
Pakistan	2002	2022
Paraguay	1999	2022
Peru	1992	2022
Philippines	1994	2021
Russian Federation	2001	2021
South Africa	1992	2022
South Korea	1986	2022
Taiwan	1983	2022
Thailand	1996	2021
Trinidad and Tobago	1996	2014
Turkey	1989	2021
Ukraine	2007	2021
Uruguay	1997	2020
United States	1978	2022
Venezuela	1992	2001

Table A7. Correlation matrix—trade globalization

Var.	Trade Glob.	Retaliation	REER	Polity	Unemploy.	GDP	Imp. Gr.	Ann. Imp	CIM
Trade Glob.	1								
Retaliation	-0.0	1							
REER	-0.1	-0.1	1						
Polity	-0.18	0.06	-0.04	1					
Unemploy.	-0.15	-0.25	0.22	0.15	1				
GDP	0.15	0.06	-0.01	-0.07	-0.16	1			
Imp. Gr.	-0.05	-0.0	0.02	-0.05	-0.11	0.69	1		
Ann. Imp.	-0.0	0.22	0.04	0.17	-0.14	-0.07	-0.05	1	
CIM	0.1	0.08	-0.1	0.27	0.07	-0.18	-0.2	0.06	1

Table A8. Correlation matrix—financial globalization

Var.	Fin. Glob.	Retaliation	REER	Polity	Unemploy.	GDP	Import Gr.	Ann. Imp.	CIM
Fin. Glob.	1								
Retaliation	-0.28	1							
REER	-0.01	-0.1	1						
Polity	0.1	0.06	-0.04	1					
Unemploy.	0.07	-0.25	0.22	0.15	1				
GDP	-0.15	0.06	-0.01	-0.07	-0.16	1			
Import Gr.	-0.16	-0.0	0.02	-0.05	-0.11	0.69	1		
Ann. Imp.	0.18	0.22	0.04	0.17	-0.14	-0.07	-0.05	1	
CIM	0.21	0.08	-0.1	0.27	0.07	-0.18	-0.2	0.06	1

Table A9. Summary statistics

Variable	N	Min.	Max.	Mean	St. Dev.
Petition Initiations	922	0	94	9.24	14.08
Trade Globalization	816	8.24	89.4	42.6	18.3
Financial Globalization	816	17.6	87.2	56.7	15.2
FDI Stock Outflows	849	.046	154.7	15.05	18.83
FDI Stock Inflows	890	.343	196.3	27.0	23.06
Exports (Percent GDP)	833	6.59	121.3	28.63	17.06
Imports (Percent GDP)	833	4.63	100.5	28.04	14.9
Retaliation	653	0	76	5.9	9.73
Real Exchange Rates	907	43.6	222.0	102.07	22.3

(Continued)

Table A9. (Continued)

Variable	N	Min.	Max.	Mean	St. Dev.
Democracy	757	-7	10	7.1	3.94
Unemployment	791	.397	33.4	7.28	4.94
GDP Growth	868	-14.7	14.4	3.38	3.71
Import Growth	816	-50.0	80.0	6.13	11.8
Total Annual Imports	699	1382.5	6426424	304423.2	793111.2
Contract-Intensive Money	501	.698	.999	.906	.064
Banking Crisis	663	0	1	.180	.385
Economic Crisis	633	0	1	.116	.321
Inflation Crisis	650	0	1	.092	.289