Latent Statecraft: Political Alignment in the Shadow of Tariffs

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Abstract

Tariffs have long been understood as a tool of economic statecraft, used not only to manage trade but to extract political returns from trading partners. This may be why tariff-cut commitments so often look lopsided: a hegemon may offer periphery countries deeper cuts than it receives in return, with the imbalance possibly compensated on a different margin, namely political concessions. Using the United States as the hegemon and UN General Assembly voting as our measure of political concessions, we measure economic concessions as the terms-of-trade effect of bilateral tariff cuts and exploit variation in their value over time. We find that periods of larger tariff concessions from the U.S. are also periods of greater political concessions by periphery countries. This holds even absent new tariff policy: a tariff schedule's economic value is continuously revalued by shifting trade patterns, and the political returns to a concession made years earlier track this revaluation.

Keywords: Trade Agreements, Political Alignment, Economic Concessions, Political Concessions

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1 Introduction

For most of modern history, trade policy was an instrument of foreign policy. Market access was granted to friends and withheld from rivals, and commercial treaties were negotiated alongside political alliances, often as part of them. The multilateral trading system built after the Second World War appeared to break this link: under the GATT, and later the WTO, tariffs were bound in schedules, extended to all members on a most-favored-nation basis, and insulated from fluctuations in diplomatic relations. This decoupling of trade policy from foreign policy embodied the classical liberal view that trade is a source of mutual gain, so that considerations of relative power have no place in commercial policy.

The rules-based system that developed under the GATT/WTO is nevertheless a self-help system (Waltz, 1979): it persists only as long as sovereign governments find it in their interest to cooperate. Historically, that cooperation was organized by a hegemon. The postwar trading system was built under American leadership, at a time when the United States had both the capacity and the willingness to bear a disproportionate share of the cost of establishing it (Kindleberger, 1973; Gilpin, 1981). As American dominance declined in relative terms, these institutions could in principle persist without a hegemon, sustained by mutual gains and the threat of reciprocal retaliation (Keohane, 1984). Reciprocity is therefore essential if the system is to be self-enforcing "after hegemony."

The observed pattern of liberalization, however, is not reciprocal. Beshkar, Chang, and Song (2025) show that the terms-of-trade concessions exchanged under the GATT/WTO are far from balanced: the United States concedes substantially more than it receives from many of its partners, and the imbalance has widened since the establishment of the WTO. A strictly reciprocal exchange of concessions would not have delivered the level of liberalization we observe.

This raises the question of what sustained the system. If the exchange of concessions is not reciprocal in economic terms, mutual gains alone are an incomplete account of why it lasted. Yet for several decades the United States and other large economies abided by the rules (Wilson, 2007; Davis, 2006), and none openly conditioned its trade concessions on the political alignment of its partners. Several explanations are possible, and they are not mutually exclusive: a sustained ideological commitment to open markets among policymakers, the interests of exporters and multinational firms, the linkage between tariff and non-tariff issues in international trade, and the inertia of established institutions may each have played a part.

We examine one further possibility: that the United States was compensated for its net concessions in political rather than economic terms. The net concessions that the United States extended to its partners, and could in principle withdraw, may have made the conduct of American foreign policy easier without a tariff ever being raised. We refer

to influence of this kind as *latent statecraft*: leverage that operates through tariffs that are not imposed.

To study the link between tariffs as latent statecraft and the conduct of American foreign policy, we examine the causal relationship between the terms-of-trade concessions that a partner receives from the United States and that partner's alignment with American foreign policy, as reflected in its votes in the United Nations General Assembly (UNGA). We use the variation in bilateral concessions over time: although tariffs remain largely unchanged, the concessions they imply shift with trade patterns.

We measure economic concessions as the terms-of-trade effect of bilateral tariff cuts. This choice follows the standard theory of trade agreements, in which a tariff set unilaterally imposes a terms-of-trade externality on trading partners by pushing down their export prices and, with them, their factor rewards. Bagwell and Staiger (1999) show that, in this framework, correcting the externality is the only purpose a trade agreement among sovereign governments serves, and that in a two-country setting a rule of reciprocity achieves it: when mutual tariff cuts change each country's imports and exports by equal amounts at fixed prices, the terms of trade are unchanged and the externality is neutralized. This notion of reciprocity matches the language and practice of the GATT/WTO, which emphasize reciprocal improvements in market access. The degree of cooperation achieved under an agreement can therefore be measured by the terms-of-trade gains that each country gives up by committing its trade policy.

To quantify these gains, we use the framework of Beshkar et al. (2025). The measure combines the tariff cut, taken relative to the non-cooperative (Nash) tariff, with prevailing bilateral trade flows, which determine how much a given tariff cut is worth. The net concession between two countries is the deviation from reciprocity in the terms-of-trade gains that each derives from the agreement. We compute it from a multi-country, multi-sector quantitative trade model for 35 U.S. trading partners over 1995–2018.

Bilateral trade flows shift over time for reasons unrelated to tariff policy: third-country shocks, changes in global sourcing, and policies that reshape trade flows, such as the promotion of foreign investment or supply-chain integration. As a result, the same tariff schedule implies a different concession from one year to the next. This distinguishes our measure from two alternatives. Measures based on tariffs alone are static and do not capture how a given schedule is revalued as trade patterns change. Measures based on trade exposure, such as the income-exposure measure of Kleinman, Liu, and Redding (2024), vary over time but do not indicate the size of the tariff threat, which depends on the gap between a government's current tariffs and its unilaterally optimal tariffs. Our measure captures both this gap and its revaluation by the trading environment in which it operates.

We measure foreign policy alignment by the similarity of a partner's votes with those of the United States in the UNGA (Signorino and Ritter, 1999). Given the non-binding

nature of UNGA resolutions, a vote expresses a foreign policy position without creating a material obligation, and every member has the option to vote, which makes positions comparable across countries and over time. Two distinctions guide the analysis, both motivated by a simple model of exchange between a hegemon and its partners that we develop in Section 2. First, we separate allies, defined as countries with a defense cooperation agreement with the United States at the founding of the WTO (Kinne, 2020), from all other countries, which we call transactional partners. Allies' alignment is anchored by security ties, so the leverage we describe should matter less for them. Second, we separate votes that the U.S. Department of State designates as important from those it does not. Aligning on a prominent vote is politically costly for a partner, so the model predicts that the response to concessions appears first in the less prominent votes.

The variation in concessions over time is the basis of our identification strategy. We compare each partner with itself over time, using country fixed effects to absorb permanent differences in alignment and year fixed effects to absorb changes common to all partners, such as the agenda of the General Assembly. Bilateral political developments may nevertheless move a partner's trade with the United States and its foreign policy together, and alignment may itself feed back into trade. As a source of plausibly exogenous variation, we therefore construct predicted concessions from a gravity model of trade following Feyrer (2019), which exploits the decline in air transportation costs. Country pairs differ in how much shorter their air route is than their sea route, and as air transport costs fell, pairs with the largest gap experienced the largest decline in effective trade costs. We use the trade flows predicted by this variation to construct predicted concessions, which serve as our instrument. Holding each partner's import openness at its 1995 level, this isolates variation in concessions that arises from transportation technology and from changes in exporters' competitiveness, rather than from bilateral political developments. Because the same variation raises bilateral trade more broadly, which may affect alignment directly (Kleinman et al., 2024), and because changes in a partner's own competitiveness may coincide with changes in its foreign policy, the comparisons across allies and across vote categories also serve as falsification tests: a general effect of economic integration should appear among allies and on important votes as well.

Our results are consistent with latent statecraft. Among transactional partners, years in which a country receives larger net concessions from the United States are also years in which it votes more closely with the United States: a one-standard-deviation increase in net concessions corresponds to an increase of about 0.17 standard deviations in voting similarity. The instrumental-variable estimates are close to their OLS counterparts. No such relationship appears when allies are included in the sample. The response is concentrated in votes that the United States does not designate as important, and is absent in important votes. Consistent with the model, the response is stronger among

smaller partners, for which a given concession is large relative to the size of their economy. The results are similar when alignment is measured by the distance between ideal points (Bailey, Strezhnev, and Voeten, 2017).

The timing of the relationship is informative about its direction. Lagged concessions continue to predict alignment, with a magnitude that declines as the lag lengthens. Lagged alignment, by contrast, has little predictive power for concessions once the persistence of concessions is taken into account. This asymmetry is what we would expect if partners adjust their alignment in response to concessions already received, and not if the United States adjusts its concessions in response to a partner's prior alignment.

These patterns indicate how tariff concessions function as political leverage. Tariff schedules change infrequently, typically only around WTO accession or the formation of a preferential agreement, so in most years there is no new tariff policy to trade for alignment. Yet alignment moves from year to year, and it tracks our measure of concessions even in years with no tariff change. The United States does not appear to renegotiate tariffs to buy alignment. The political support that an existing commitment can command instead depends on what that commitment is currently worth to the partner, which is what we mean by latent statecraft.

1.1 Related Literature

Our paper contributes to several strands of the literature. First, it contributes to the study of the persistence of trade agreements. Bagwell and Staiger (1999) and Bagwell and Staiger (2002) provide the theoretical foundation of the multilateral trading system, emphasizing the role of reciprocity in sustaining cooperation. More recently, Beshkar et al. (2025) extends this framework to a multi-country setting and quantifies the economic concessions embedded in trade agreements. While this literature explains how reciprocity sustains cooperation, it is largely silent on why agreements persist even as realized economic concessions drift away from reciprocity over time. We address this gap by showing that such imbalances can be sustained through a political exchange mechanism, in which economic concessions are compensated by political alignment. This provides a novel explanation for why trade agreements remain stable even as realized economic concessions drift away from reciprocity over time.

Second, this paper contributes to the literature on audience costs in international politics. Fearon (1994) shows that domestic audience costs enable credible signaling in international crises, making states with higher audience costs less likely to back down. A large subsequent literature has examined how audience costs shape signaling and behavior in international crises (e.g., Schultz, 2001; Smith, 1998; Slantchev, 2006), as well as their empirical relevance (Tomz, 2007; Weeks, 2008), though their magnitude and importance remain debated (Snyder and Borghard, 2011). We contribute to this literature by

showing that audience costs do not merely facilitate signaling, but fundamentally shape the equilibrium structure of international political exchange. In our framework, audience costs determine the domestic political cost of alignment with the hegemon, and their variation across issue areas generates a cutoff structure that governs when and how political concessions are supplied.

Lastly, this paper contributes to a growing literature linking international trade and political alignment. Several papers document that political alignment is associated with economic outcomes in international institutions. Thacker (1999) and Barro and Lee (2005) show that countries that are more politically aligned with major powers are more likely to receive IMF support, while Andersen, Harr, and Tarp (2006) formalize political concessions as deviations from a country's preferred policy position and show that such concessions are rewarded with greater access to IMF lending. Conversely, Dreher and Sturm (2012) find that recipients of World Bank programs and loans subsequently vote more in line with G7 countries in the UN General Assembly. More recently, Kleinman et al. (2024) show that countries become more politically aligned with trade partners on whom they become economically dependent.

2 Model

2.1 The Economic Setting

We measure the economic value of tariff commitments in a standard multi-country, multi-sector quantitative trade model of the kind widely used to evaluate trade policy (Costinot and Rodríguez-Clare, 2014; Ossa, 2014). This subsection introduces only the pieces of the model needed to define an economic concession.

Preferences. The world consists of N countries, indexed by i and j, that trade goods in K sectors, indexed by k. Within each sector, goods are differentiated by their country of origin: German and Japanese cars are similar but not identical. Let $q_{ij,k}$ denote the quantity of the sector-k good that country j buys from country i. Consumers in country j have preferences

$$U_j = \prod_{k=1}^{K} \left(\sum_{i=1}^{N} b_{ij,k}\, q_{ij,k}^{\rho_k} \right)^{\frac{\mu_{j,k}}{\rho_k}}. \tag{1}$$

This function says two things. Country j spends a fixed share $\mu_{j,k}$ of its budget on each sector k. Within a sector, it shifts its purchases toward whichever supplier becomes cheaper, and the parameter $\sigma_k \equiv 1/(1-\rho_k)$ measures how readily it does so. The weights $b_{ij,k}$ capture how much consumers in j like country i's variety.

Tariffs and the trade balance. Let $p_{ij,k}$ denote the price that country i receives for a sector-k good that it sells to country j. Country j may levy an ad valorem tariff $t_{ij,k}$ on this good, so its consumers pay $(1+t_{ij,k})\,p_{ij,k}$ and its government collects the difference.[1] Tariff revenue is returned to consumers, so what matters for a country as a whole is the price before the tariff, $p_{ij,k}$.

Countries need not pay for their imports entirely with their exports. Country j runs a trade deficit TD_j, which is the amount by which the value of its imports exceeds the value of its exports:

$$\underbrace{\sum_k \sum_{i\neq j} p_{ij,k}\, q_{ij,k}}_{\text{imports of } j} - \underbrace{\sum_k \sum_{i\neq j} p_{ji,k}\, q_{ji,k}}_{\text{exports of } j} = TD_j, \qquad \text{with} \qquad \sum_{j=1}^{N} TD_j = 0. \tag{2}$$

A country with $TD_j > 0$ spends more than it earns from production and tariffs, a country with $TD_j < 0$ spends less, and one country's deficit is necessarily another's surplus. We do not model why imbalances arise. As is common in this literature, we take them as given from the data (Dekle, Eaton, and Kortum, 2007).

Terms of trade. A country's *terms of trade* are the prices of the goods it exports relative to the prices of the goods it imports. When they improve, the same exports pay for more imports and the country is richer. When they worsen, the reverse holds.

Tariffs move the terms of trade. A tariff reduces a country's demand for foreign goods, which pushes down the price that foreign sellers receive and so shifts part of the tax onto them. A tariff cut does the opposite: it raises the price that the trading partner receives for its exports. A tariff cut is therefore a transfer of purchasing power to the partner, and this transfer is what we will call a concession.

To put a number on it, we use the measure of terms-of-trade concessions developed by Beshkar et al. (2025). Compare two outcomes for a pair of countries i and j. In outcome A, both apply the tariffs they have committed to under the trade agreement. In outcome N, the two fight a bilateral tariff war against each other, each applying its noncooperative tariff to the other, while all other tariffs in the world stay at their agreement levels. Beshkar et al. (2025) define the terms-of-trade gain that country i derives from its cooperation with j as

$$T_i \equiv \sum_k \sum_{l\neq i} \Big[\underbrace{\left(p^A_{il,k} - p^N_{il,k}\right) q^N_{il,k}}_{\text{higher export prices}} - \underbrace{\left(p^A_{li,k} - p^N_{li,k}\right) q^N_{li,k}}_{\text{higher import prices}} \Big]. \tag{3}$$

The gain is positive when cooperation raises the prices of what country i sells by more than the prices of what it buys. The sum runs over all trading partners l, and not only

[1] We suppress transport costs here; the quantitative model includes them.

over j, because tariff changes between i and j move prices in the rest of the world as well.

A graphical illustration. Figure 1 illustrates these ideas in the simplest case: two countries, home (h) and foreign (f), one good each, and balanced trade ($TD_h = TD_f = 0$). The horizontal axis measures home's exports and the vertical axis measures its imports. The figure shows three scenarios: the noncooperative equilibrium, N, in which both countries apply high tariffs and trade little, and two potential cooperative equilibria, A and A', both of which involve more trade than N. The slope of the line from the origin through each point is the relative world price of home's exports, that is, home's terms of trade. Trade liberalization from N to A is reciprocal because it leaves this relative price unchanged. In contrast, liberalization from N to A' worsens home's terms of trade: A' lies on a flatter line from the origin than N does, so home receives fewer imports per unit of exports. The terms-of-trade loss of the home country, the graphical counterpart of equation (3), is the distance between the origin and the intercept of the dashed line, which passes through A' with a slope equal to the noncooperative terms of trade.

In a multi-country setting, both countries may experience a terms-of-trade gain from bilateral tariff cuts because of trade diversion. As a result, *net concessions* that country j receives from country i may be more generally defined as its terms-of-trade gain in excess of an equal split:

$$NC_{ji} \equiv \frac{1}{2}\left(T_j - T_i\right). \tag{4}$$

By construction $NC_{ji} = -NC_{ij}$, and both are zero under reciprocity. In Figure 1, agreement A involves no net concession, while under A' home grants foreign a net concession equal to its terms-of-trade loss.

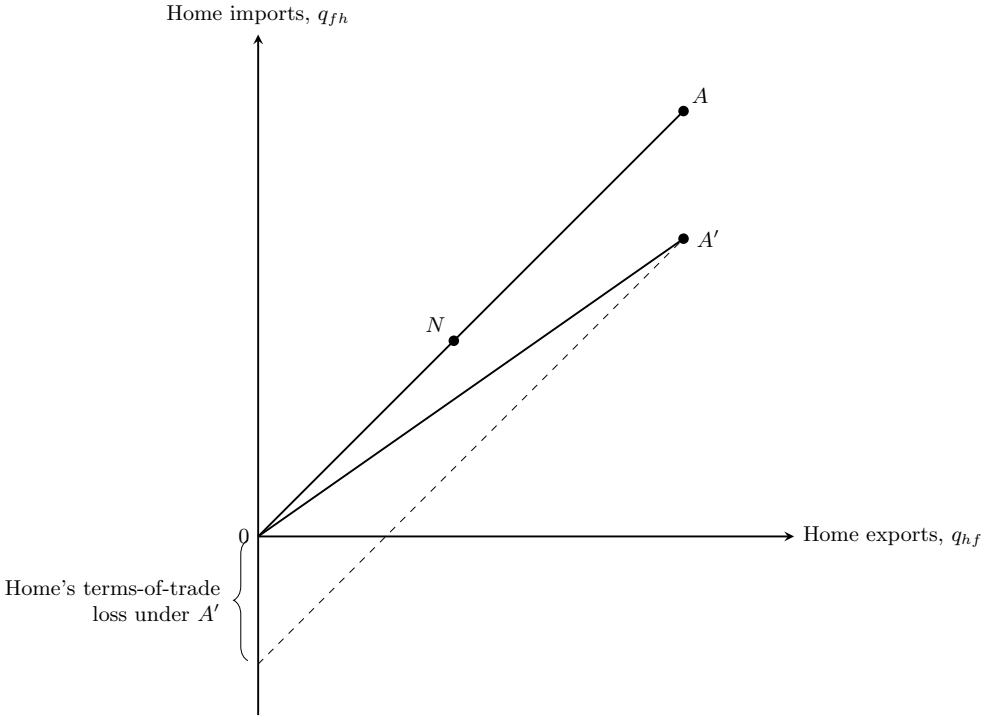
Two features of this measure matter for what follows. First, it is expressed in units of income and not in tariff points, so the same tariff schedule is worth more to a partner that trades more with the country granting it. Second, it depends on prices and quantities and not only on tariff rates. When trade patterns or trade imbalances change, the value of an existing tariff schedule changes with them, even if no tariff has been touched.[2]

2.2 The Political Setting

We now add a political dimension to the economic setting. The hegemon, h, values its own economic welfare and the political concessions it receives from other countries, and

[2]Trade imbalances enter through (2). With a home trade deficit, the lines in Figure 1 start from a point on the vertical axis above the origin, since home receives some imports without exporting anything, and a set of tariff cuts that is reciprocal under balanced trade is no longer reciprocal. See Beshkar et al. (2025).

Figure 1: Terms-of-Trade Loss from Non-Reciprocal Tariff Cuts



Note: The figure shows the home country's exports (q_{hf}) and imports (q_{fh}) under noncooperative tariffs (N), under a reciprocal agreement (A), and under a non-reciprocal agreement (A'). It is drawn for the case of balanced trade. The slope of each line from the origin is the relative world price of the home country's exports (the price of its exports divided by the price of its imports), which is its terms of trade. The move from N to A leaves the terms of trade unchanged. The move from N to A' lowers them. The dashed line passes through A' and is parallel to the line through N; the distance between its intercept and the origin is the home country's terms-of-trade loss from agreement A', measured in units of its imports.

the security relationships it maintains with them. Its objective is

$$W_h = U_h(Q_h) + \sum_{j \neq h} \theta_{jh} \sum_c z_{h,c} \, C_{jh,c} + \sum_{j \neq h} V_{jh}, \tag{5}$$

where $C_{jh,c}$ denotes the political concession from country j to the hegemon in category c, and $V_{jh} \geq 0$ denotes the value of the security relationship between the hegemon and country j. Every other country $j \neq h$ values its own economic welfare and its security relationship with the hegemon but finds political concessions to the hegemon costly. Its objective is

$$W_j = U_j(Q_j) - \sum_c z_{j,c} \, C_{jh,c} + V_{jh}. \tag{6}$$

In both objectives, Q_j denotes country j's consumption bundle, $\{q_{ij,k}\}$, and $U_j(\cdot)$ is the utility function in (1). The term V_{jh} captures the value of a security relationship between the hegemon and country j, which both governments derive independently of the exchange of economic and political concessions. We distinguish two types of relationships. For

security allies, V_{jh} is large, reflecting the security ties that bind them to the hegemon. For *transactional partners*, the relationship rests primarily on the exchange of economic concessions and political alignment, and we set $V_{jh} = 0$. We will construct our measure of political alignment from countries' votes in the United Nations General Assembly.

Political concessions are grouped into categories, c, that differ in their political salience: siding with the hegemon on a high-profile issue is more visible, and potentially more consequential at home, than siding with it on a routine one. The parameter $z_{h,c} > 0$ is the value the hegemon attaches to a concession in category c, and $z_{j,c} > 0$ is the political cost to country j of making it.

The parameter $\theta_{jh} > 0$ indicates the importance of country j's foreign policy for the hegemon. It allows the same concession to be worth more when it comes from some countries than from others. The parameter depends on both countries. Some determinants are attributes of j alone: a larger country's foreign policy, or that of a country located in a strategic region, may matter more to any hegemon. Others depend on where j stands relative to the hegemon: a neighbor's foreign policy, for example, may matter more to the hegemon next door than to a distant one. With more than one hegemon, the same country may therefore be more important to one than to the other.

In this formulation of the governments' objectives, foreign policy does not directly affect the economy of either country. A country's consumption is determined by tariffs and the other primitives of the economic setting, and not by the political concessions it makes or receives. Foreign policy choices can affect the economy only indirectly, through bargaining between governments that links them to tariffs. This is in contrast to Kleinman et al. (2024), in which a country's foreign policy can directly affect productivity in other countries. Our approach is justified if any direct effect of foreign policy on the economy materializes only in the long run.

2.3 Equilibrium

We now express the political concessions in Section 2.2 in terms of observed political alignment. Let $s_{jh,c}$ denote country j's political alignment with the hegemon in category c, and $s^0_{jh,c}$ denote baseline alignment, the alignment that country j would choose in the absence of any exchange with the hegemon. The political concession in category c is the alignment beyond this baseline, $C_{jh,c} = s_{jh,c} - s^0_{jh,c}$. Baseline alignment reflects the political environment of both countries and may therefore change over time, for example after a change in government. The model is static and applies in each period; all variables and parameters, including baseline alignment, may vary over time, and we suppress the time subscript for simplicity. In our empirical analysis, we do not measure the two components of alignment separately but use observed alignment, $s_{jh,c}$; Section 3 discusses how we account for baseline alignment.

Periphery Country Following the initial agreement, a tariff schedule is in place that generates a prevailing level of economic concession, NC_{jh}, defined in (4), whose realized value may change over time as bilateral trade patterns evolve. The periphery country's subsequent decision therefore does not involve an explicit renegotiation of economic and political concessions, but rather an implicit adjustment of political alignment in response to changes in the prevailing economic concession. Country j's economic welfare, $U_j(Q_j)$, under the prevailing agreement relative to a reciprocal agreement increases with NC_{jh}, and is higher under the prevailing agreement whenever $NC_{jh} > 0$.

Since we define the political concession as alignment beyond baseline alignment,

$$C_{jh,c} \equiv s_{jh,c} - s^0_{jh,c} \geq 0, \tag{7}$$

choosing baseline alignment is costless, whereas aligning beyond it is politically costly. In addition, country j may share a security relationship with the hegemon, whose value we denote by $V_{jh} \geq 0$. For allies, this value is large, reflecting the security ties that bind them to the hegemon. For transactional partners, the relationship rests primarily on the exchange of economic concessions and political alignment, and we set $V_{jh} = 0$. Country j's objective in (6) therefore becomes

$$W_j = U_j(Q_j) - \sum_c z_{j,c} \left(s_{jh,c} - s^0_{jh,c}\right) + V_{jh}. \tag{8}$$

We assume that the political cost of a concession rises with its salience, so that $z_{j,c}$ is higher for categories that are more visible and politically consequential at home. Indexing categories in increasing order of salience, we have

$$z_{j,1} < z_{j,2} < \cdots < z_{j,n}. \tag{9}$$

Hegemonic Country The hegemon's net economic concession to country j is a potential source of leverage: because it could in principle be withdrawn, it gives the hegemon a claim on country j's political alignment without any change in tariffs. In return, the hegemon values the political concessions it receives, as in (5), and the security relationship it shares with country j. Its objective with respect to country j can therefore be written as

$$W_h = U_h(Q_h) + \theta_{jh} \sum_c z_{h,c} \left(s_{jh,c} - s^0_{jh,c}\right) + V_{jh}. \tag{10}$$

The hegemon also benefits from baseline alignment, $s^0_{jh,c}$, but it obtains this alignment without granting any economic concession. What the hegemon gains from the relationship in exchange for its economic concession is therefore the alignment beyond baseline, $s_{jh,c} - s^0_{jh,c}$. The term $V_{jh} \geq 0$ is the value of the security relationship defined above, which the hegemon would put at risk by withdrawing its economic concessions from country j.

Following Section 2.2, the hegemon values concessions on more salient issues more highly, so that $z_{h,c}$ is higher for more salient categories. However, the political cost to the periphery country, $z_{j,c}$, rises more steeply with salience, because alignment on such issues exposes its government to greater public scrutiny and domestic opposition. As a result, the ratio of the hegemon's benefit to the periphery country's cost declines with salience. We therefore index categories in descending order of this ratio, so that

$$\frac{z_{h,1}}{z_{j,1}} \geq \frac{z_{h,2}}{z_{j,2}} \geq \cdots \geq \frac{z_{h,n}}{z_{j,n}}. \tag{11}$$

Optimal Alignment We treat the prevailing level of economic concessions, NC_{jh}, as predetermined within a period and focus on the periphery country's subsequent adjustment of political alignment. This timing reflects the fact that the economic value of an existing tariff schedule may change over time as bilateral trade patterns evolve, while the tariff schedule itself is largely predetermined from the perspective of the political adjustment taking place within a given period.[3] Because there is no interaction among periphery countries, we analyze the relationship between the hegemon and each periphery country separately.

The hegemon does not explicitly demand alignment or renegotiate tariffs. Its leverage is latent: it could, in principle, withdraw its net economic concession and return to a reciprocal agreement. Let Q_h^R denote the hegemon's consumption under a reciprocal agreement, in which neither country grants a net concession. If the hegemon withdrew its concession, it would recover the welfare loss that the prevailing agreement imposes on it relative to a reciprocal agreement, which depends on the economic concession it grants to country j:

$$U_h(Q_h^R) - U_h(Q_h) = G(NC_{jh}), \tag{12}$$

where G is increasing, $G' > 0$, and $G(0) = 0$. To keep the notation simple, we normalize $G(NC_{jh}) = NC_{jh}$.[4] At the same time, country j would return to its baseline alignment, and the hegemon would put the security relationship at risk. The hegemon therefore maintains its economic concession only if

$$\theta_{jh} \sum_c z_{h,c} \left(s_{jh,c} - s^0_{jh,c}\right) + V_{jh} \;\geq\; NC_{jh}. \tag{13}$$

Anticipating this, the periphery country chooses its alignment to maximize its objective

[3] Consistent with this view, Beshkar et al. (2025) note that the empirical link running from tariff policy to trade balances appears weak (Furceri, Hannan, Ostry, and Rose, 2018), whereas the persistence of trade imbalances has been attributed elsewhere to sources unrelated to tariffs, such as financial repression (Song, Storesletten, and Zilibotti, 2011) and cross-country differences in demographic structure (Cooper, 2008; Sposi, 2022).

[4] With a general increasing G, the analysis below holds with NC_{jh} replaced by $G(NC_{jh})$, and the comparative statics with respect to NC_{jh} are scaled by $G'(NC_{jh}) > 0$.

subject to the hegemon's sustainability constraint. Given NC_{jh}, country j solves

$$\begin{aligned} \max_{\{s_{jh,c}\}_{c=1}^{n}} \quad & U_j(Q_j) + V_{jh} - \sum_{c=1}^{n} z_{j,c}\left(s_{jh,c} - s^0_{jh,c}\right) \\ \text{s.t.} \quad & \theta_{jh} \sum_{c=1}^{n} z_{h,c}\left(s_{jh,c} - s^0_{jh,c}\right) + V_{jh} \geq NC_{jh}, \\ & s^0_{jh,c} \leq s_{jh,c} \leq \bar{s} \quad \text{for all } c, \end{aligned} \tag{14}$$

where the upper bound reflects that alignment cannot exceed perfect agreement.[5]

Let $\lambda \geq 0$ denote the multiplier on the sustainability constraint. The Lagrangian is

$$\begin{aligned} \mathcal{L} = {} & U_j(Q_j) + V_{jh} - \sum_{c=1}^{n} z_{j,c}\left(s_{jh,c} - s^0_{jh,c}\right) \\ & + \lambda \left[\theta_{jh} \sum_{c=1}^{n} z_{h,c}\left(s_{jh,c} - s^0_{jh,c}\right) + V_{jh} - NC_{jh}\right]. \end{aligned} \tag{15}$$

For each c,

$$\frac{\partial \mathcal{L}}{\partial s_{jh,c}} = -z_{j,c} + \lambda\, \theta_{jh}\, z_{h,c}.$$

The Kuhn–Tucker conditions imply

$$\begin{aligned} s_{jh,c} = s^0_{jh,c} \;&\Rightarrow\; \frac{\partial \mathcal{L}}{\partial s_{jh,c}} \leq 0, \\ s^0_{jh,c} < s_{jh,c} < \bar{s} \;&\Rightarrow\; \frac{\partial \mathcal{L}}{\partial s_{jh,c}} = 0, \\ s_{jh,c} = \bar{s} \;&\Rightarrow\; \frac{\partial \mathcal{L}}{\partial s_{jh,c}} \geq 0. \end{aligned}$$

Hence, when $\lambda > 0$, country j aligns beyond baseline in category c only if

$$\frac{z_{h,c}}{z_{j,c}} \;\geq\; \frac{1}{\lambda\, \theta_{jh}}.$$

Given the ordering in (11), there exists a cutoff index ℓ such that

$$s_{jh,c} = \bar{s} \;\text{ for } c < \ell, \qquad s^0_{jh,\ell} < s_{jh,\ell} \leq \bar{s}, \qquad s_{jh,c} = s^0_{jh,c} \;\text{ for } c > \ell.$$

Country j supplies additional alignment first in the category with the highest benefit-to-cost ratio, and moves to the next category only once alignment in that category reaches

[5] We assume that country j prefers to remain in the relationship, that is, $\sum_c z_{j,c} C_{jh,c} \leq NC_{jh} + V_{jh}$ at the solution. A sufficient condition is that $\theta_{jh} z_{h,c} \geq z_{j,c}$ in every category in which country j aligns beyond baseline, because the sustainability constraint then implies $\sum_c z_{j,c} C_{jh,c} \leq \theta_{jh} \sum_c z_{h,c} C_{jh,c} = NC_{jh} - V_{jh}$.

full alignment. The cutoff index ℓ is the category at which full alignment in categories $1, \ldots, \ell - 1$ falls short of compensating the hegemon, whereas full alignment in categories $1, \ldots, \ell$ would not, that is, the smallest ℓ such that $\theta_{jh} \sum_{c \leq \ell} z_{h,c} \left(\bar{s} - s^0_{jh,c} \right) \geq NC_{jh} - V_{jh}$. Country j fully aligns in categories $c < \ell$, partially aligns in category ℓ, and does not align beyond baseline in categories $c > \ell$. Alignment in the marginal category is

$$s_{jh,\ell} = s^0_{jh,\ell} + \frac{NC_{jh} - V_{jh} - \theta_{jh} \sum_{c<\ell} z_{h,c} \left(\bar{s} - s^0_{jh,c} \right)}{\theta_{jh}\, z_{h,\ell}}. \tag{16}$$

Comparative Statics It follows that, whenever the sustainability constraint binds,

$$\frac{\partial s_{jh,\ell}}{\partial NC_{jh}} = \frac{1}{\theta_{jh}\, z_{h,\ell}} > 0, \qquad \frac{\partial s_{jh,c}}{\partial NC_{jh}} = 0 \ \text{ for } c \neq \ell.$$

An increase in economic concessions raises political alignment in the marginal category. Moreover, because the cumulative value of full alignment, $\theta_{jh} \sum_{c \leq \ell} z_{h,c} \left(\bar{s} - s^0_{jh,c} \right)$, increases in ℓ, a larger economic concession raises the level that this value must reach, so that the cutoff index ℓ is weakly increasing in NC_{jh}. As economic concessions grow, additional alignment therefore extends to more salient categories. The response is smaller when country j's foreign policy is more important to the hegemon (higher θ_{jh}), because each unit of alignment is then worth more to the hegemon. Empirically, we proxy θ_{jh} by country j's economic size relative to the hegemon, so that this prediction implies a weaker response of alignment to economic concessions among larger partners.

Whether the sustainability constraint binds depends on the value of the security relationship. If $V_{jh} \geq NC_{jh}$, the constraint is satisfied at baseline alignment in every category, so that $\lambda = 0$ and $s_{jh,c} = s^0_{jh,c}$ for all c. In this case, the hegemon maintains its economic concession without requiring additional alignment in return, and the periphery country's alignment does not respond to changes in economic concessions. This is the case for allies, whose security relationship with the hegemon is sufficiently valuable. By contrast, for transactional partners, for which $V_{jh} = 0$, the constraint binds whenever $NC_{jh} > 0$, and political alignment rises with economic concessions as characterized above. If instead $NC_{jh} \leq 0$, the constraint is satisfied at baseline alignment, and alignment does not respond to economic concessions.

3 Empirical Evidence

We next take the model's predictions to the data. Because tariff commitments rarely change, the variation we exploit comes from the revaluation of existing tariff schedules as trade patterns evolve. The model's central prediction is that larger economic concessions are associated with greater political alignment among transactional partners. As in the introduction, two distinctions sharpen this prediction. First, the relationship should hold

for transactional partners but not for allies, whose alignment is anchored by security ties, so that pooling the two groups attenuates the relationship. Second, the adjustment should occur primarily in low-cost vote categories, that is, votes that the U.S. does not designate as important.

We test these predictions by relating the level of political alignment with the U.S., measured by the S-score of UNGA voting similarity, to economic concessions. We estimate this relationship separately for transactional partners and for the pooled sample of transactional partners and allies, and separately for Important and Not Important votes.

The key empirical challenge is the confounder problem. Although much of the variation in economic concessions is driven by macroeconomic factors such as trade imbalances, these factors do not fully account for it—other omitted factors, such as an investment agreement or shifts in global sourcing, could still affect both economic concessions and political alignment, creating an omitted-variable problem. In addition, although past political alignment does not predict economic concessions once their persistence is taken into account (Appendix E.2), reverse causality remains a theoretical possibility that motivates the instrumental-variable strategy developed below.

We address this empirical challenge by constructing predicted economic concessions from a gravity model of trade following Feyrer (2019), which exploits the reduction in air travel costs. The main idea is that country pairs differ in the gap between their bilateral sea distance and their great-circle (air) distance—since shipping routes must often detour around landmasses, whereas air routes do not. As global air transport costs fell, country pairs for which air routes are relatively shorter than sea routes experienced larger reductions in effective trade costs than country pairs for which air and sea distances are more similar.

3.1 Mapping the Model to Data

International trade data are drawn from the OECD–WTO Trade in Value Added database (OECD, 2021), which reports bilateral trade flows for 66 economies across 45 sectors over the period 1995–2018. We aggregate all service sectors into a single combined sector and, since trade policy is determined at the EU level, treat the European Union as a single entity.[6] The resulting sample comprises 40 economies (or regions) and 22 individual sectors (excluding the service sector), but our empirical analysis covers the U.S. and 35 of these economies, excluding those for which voting or tariff data are unavailable.[7]

Tariff data are obtained from the TRAINS database via the World Integrated Trade

[6]Because the European Union does not vote in the UNGA or sign defense cooperation agreements as a single entity, we use Germany's UNGA votes and DCA status for the European Union. Appendix B.3 shows that our results are robust to excluding the European Union.

[7]We exclude the rest of the world and Kazakhstan, for which tariff data are not available to compute economic concessions. We further exclude Hong Kong and Taiwan, which do not vote in the UN General Assembly. Switzerland enters the sample after joining the United Nations in 2002.

Solution (WITS), which reports applied tariff rates across countries and sectors. These data are used to compute terms-of-trade gains and net concessions following the methodology of Beshkar et al. (2025), which derives non-cooperative tariffs and characterizes the movement from non-cooperative to cooperative outcomes. Because economic concessions are measured in current U.S. dollars, we convert them, together with the predicted concessions used as an instrument (Section 3.5.2), into constant 1995 U.S. dollars using the U.S. GDP implicit price deflator (U.S. Bureau of Economic Analysis, 2026), so that concessions are comparable across years.

United Nations General Assembly (UNGA) voting data are from Fjelstul, Hug, and Kilby (2025), which provides comprehensive coverage of UNGA voting decisions, including not only adopted resolutions but also failed resolutions and votes leading up to consideration by the UNGA, such as votes on amendments, individual paragraphs, and procedural motions. Including such votes yields a more complete measure of countries' international political alignment. Based on these data, we construct several measures of voting similarity, including the S-score, the κ-score, and the π-score. Because these measures require country-level voting records, our sample is restricted to resolutions and decisions on which a recorded vote took place, rather than resolutions adopted without a vote by consensus.

As an alternative measure of political alignment, we use the dynamic ideal-point estimates of Bailey et al. (2017), which capture each country's position relative to the U.S.-led liberal international order and are designed to be comparable over time. We measure alignment as the absolute distance between the ideal point of country j and that of the U.S. in year t, so that a smaller distance indicates closer alignment.

Data on defense cooperation agreements (DCAs), which we use to distinguish allies from transactional partners, are drawn from the Defense Cooperation Agreement Dataset (Kinne, 2020).

Preferential trade agreement (PTA) data are obtained from the World Bank Deep Trade Agreements Database (Hofmann, Osnago, and Ruta, 2017). We construct a binary indicator equal to one if a PTA is in force between a pair of trading partners in a given year, and zero otherwise.

Data on GDP, which we use to construct each partner's GDP relative to that of the U.S., are drawn from the World Development Indicators (World Bank, 2026), measured in current U.S. dollars.

Executive ideology data are drawn from the Database of Political Institutions (Scartascini, Cruz, and Keefer, 2021), which provides annual data on political institutions and government characteristics for a broad set of countries. We use the executive ideology variable, which classifies the political orientation of the executive as left, center, or right, in robustness specifications to account for time-varying changes in baseline political alignment associated with domestic political conditions.

3.2 Measuring Political Alignment

We measure political alignment using voting data from the United Nations General Assembly (UNGA), which provides a natural empirical setting for the political concessions characterized in the model. Unlike the United Nations Security Council, UNGA resolutions are generally non-binding and do not impose direct material obligations on member states. Voting in the UNGA therefore primarily reflects countries' publicly expressed foreign policy positions rather than enforceable commitments. In this context, political alignment generates reputational and symbolic benefits for the hegemon, the value of which may vary across partner countries and over time, while potentially imposing heterogeneous political costs on periphery countries. Carter and Stone (2015) document this symbolic function: even on important votes, the United States seeks support not to determine outcomes but to appear less isolated and to gain legitimacy, a logic we apply to all vote categories.

3.2.1 UNGA Votes

UN member states may cast one of three recorded votes on each voting decision: yes, abstain, or no. A single resolution could generate multiple voting decisions, including a vote on final passage as well as votes on amendments, motions, or individual paragraphs. We include all recorded voting decisions regardless of decision type. The U.S. Department of State identifies certain UNGA votes as "important" to U.S. interests (U.S. Department of State, 2025). Based on this designation, we divide votes into two groups: Important votes, which are designated as important by the U.S., and Not Important votes, which are not. Section 3.2.3 explains how these two groups are mapped into the political-cost categories used in the empirical analysis.

3.2.2 Measure of Political Alignment

Although the literature offers several measures of voting similarity, we primarily employ the S-score proposed by Signorino and Ritter (1999). For each dyad (i, j) in year t, the S-score is defined as

$$S_{ijt}^{l} = 1 - \frac{1}{\left|V_{ijt}^{l}\right|} \sum_{v \in V_{ijt}^{l}} \frac{|s_{iv} - s_{jv}|}{\Delta^{\max}}, \tag{17}$$

where V_{ijt}^{l} denotes the set of voting decisions in category l in year t on which both countries i and j cast a recorded vote, and $\left|V_{ijt}^{l}\right|$ denotes the number of such decisions. The variable $s_{iv} \in \{1, 2, 3\}$ denotes country i's choice on voting decision v, with 1 denoting a yes vote, 2 an abstention, and 3 a no vote, while $\Delta^{\max} = 2$ is the maximum possible distance between any two recorded choices. The resulting measure ranges from 0, indicating maximum disagreement, to 1, indicating perfect agreement. It is a linear rescaling

of the original Signorino and Ritter (1999) statistic from $[-1, 1]$ to $[0, 1]$.[8] We similarly exclude the small number of decisions on which every voting country cast an identical choice. Such unanimous outcomes generate perfect agreement for every dyad by construction and are therefore uninformative about relative political alignment. This exclusion could in principle affect our comparison across vote categories if unanimity rates differed systematically between Important and Not Important votes; in practice, however, unanimous outcomes are rare and occur at comparable rates across the two categories, so this exclusion has a negligible effect on our results.[9]

The advantage of using this measure is clear. First, the S-score provides a direct and intuitive interpretation of bilateral alignment. We can compare voting similarity between countries as well as within a country over time. It also allows us to compute voting similarity for different subsets of votes, and we can therefore compare similarity across different vote categories. Second, it captures marginal changes in voting similarity. Because we examine how periphery countries adjust their political alignment toward the hegemon to maintain the implicit exchange structure, it is crucial to capture these marginal movements. In this sense, the S-score is responsive to such incremental changes. As a robustness check, we re-estimate our main specifications using both the π-score and the κ-score, and find that the results remain substantively unchanged (Appendix B.2).

There are two related concerns. First, the composition of resolutions varies over time, so voting similarity may be sensitive to the set of resolutions considered in a given year. Second, observed voting similarity contains not only latent baseline alignment but also strategic alignment, which we call political concessions. Isolating political concessions—deviations from latent baseline alignment—is therefore another challenge when using the S-score.

We address these concerns in several ways. Because changes in the composition of resolutions in a given year apply to all countries, their common effect on voting similarity is absorbed by year fixed effects in our empirical specification. As a robustness check, we also use the dynamic ideal-point estimates of Bailey et al. (2017), which use resolutions that recur across sessions to place countries' positions on a common scale over time and are therefore less sensitive to changes in the agenda. Regarding the second concern, country fixed effects absorb time-invariant differences in latent baseline alignment. We address

[8]The original S-score is defined as $S^{l,*}_{ijt} = 1 - 2\overline{d}^{l}_{ijt}$, where $\overline{d}^{l}_{ijt}$ is the mean normalized absolute voting distance across decisions in V^{l}_{ijt}. Our rescaled measure satisfies $S^{l}_{ijt} = (S^{l,*}_{ijt} + 1)/2$ and therefore preserves the rank ordering across dyads. Following Signorino and Ritter (1999), we treat abstentions as intermediate positions between yes and no votes. Non-participations, including absences, are not treated as voting choices and are excluded from V^{l}_{ijt}. We use each country's vote as originally recorded at the meeting rather than the vote as subsequently amended at the country's request; the two differ for about 0.4 percent of country-decision observations, and all three similarity measures are computed from the original votes.

[9]Of the 2,468 recorded decisions during 1995–2018, 12 (0.49 percent) are unanimous: 2 of 304 Important decisions (0.66 percent) and 10 of 2,164 Not Important decisions (0.46 percent).

time-varying confounders through the comparisons between transactional partners and allies and between Important and Not Important votes, and through the instrumental-variable strategy described in Section 3.5.2. As a robustness check, we also control for executive ideology, which may shift baseline alignment following a change in government.

3.2.3 Vote Categories

The cutoff structure characterized in Section 2.3 implies that political concessions are supplied first in vote categories with higher benefit-to-cost ratios. Under the ordering in Equation (11), these are the categories in which alignment imposes relatively low political costs on the periphery country. Because changes in the realized economic value of an existing tariff schedule are incremental, political adjustment in response to such changes is expected to be concentrated in lower-cost categories. This prediction is consistent with Lake (2009), who argues that symbolic acts of obeisance are typically concentrated in relatively low-cost domains, since sufficiently costly acts may induce subordinate states to opt out, and with Morse and Coggins (2024), who argue that weaker states tend to weigh in on highly salient issues while allowing their votes to be "bought" on issues that matter relatively little.

To proxy for political costs, we classify votes based on whether they are designated as "important" by the U.S. Department of State. The U.S. importance designation provides an institutionally grounded measure of the value that the U.S. assigns to alignment on an issue. Important votes concern issues that the U.S. considers closely related to its foreign-policy priorities. Moreover, since 1985, U.S. law has required foreign-aid decisions to reflect recipient countries' voting behavior specifically on these important votes (Carter and Stone, 2015). The designation is therefore not an analytical classification of our own but a direct, legally codified indication of which UNGA issues the United States regards as consequential. Because these votes concern U.S. stated national interests and are linked to explicit policy consequences, they are also likely to attract greater political attention and scrutiny in periphery countries. We therefore treat Important votes as the high-cost category and Not Important votes as the low-cost category (Table 1), and expect political alignment on Not Important votes to respond more strongly to economic concessions than alignment on Important votes.

Table 1: Classification of UNGA Voting by U.S. Importance Designation

		Political Cost (Benefit)
U.S. Designation	Important	High Cost
	Not Important	Low Cost

Notes: As assumed in Section 2, the hegemon benefits more from alignment on salient votes, while the periphery country faces higher political costs on such votes. Vote categories can therefore be ordered by either political cost or political benefit.

3.3 Allies and Transactional Partners

In the model, allies are countries whose security relationship with the hegemon is valuable, $V_{jh} > 0$, while transactional partners are those whose relationship rests on the exchange of economic concessions and political alignment, $V_{jh} = 0$. Empirically, we classify countries with a defense cooperation agreement (DCA) with the U.S. as allies and all other countries as transactional partners. This classification approximates the model's distinction: some countries without a DCA may nonetheless maintain a valuable security relationship with the U.S. Including such countries among transactional partners would attenuate, rather than inflate, the estimated relationship between economic concessions and political alignment.[10]

We use DCAs rather than formal defense pacts. As Kinne (2020) documents, governments rarely sign new formal alliances, and the global alliance structure has changed little over decades, whereas DCAs, bilateral framework treaties that institutionalize day-to-day defense relations such as policy coordination, joint exercises, and arms trade, have proliferated since 1980. Formal defense pacts therefore provide a coarse measure of active security relationships in our sample period: most U.S. defense pacts, including the Rio Treaty, date from the early Cold War and cover nearly all countries in the Western Hemisphere. DCAs, by contrast, capture whether a country maintains an operative security relationship with the U.S.

Our baseline classification is based on DCA status as of 1995, the year the WTO was established. This choice is motivated by our framework, in which the nature of the relationship between the U.S. and each partner is set when the initial agreement establishes the tariff schedule, and subsequent adjustments in political alignment take place within that relationship. Fixing the classification at the beginning of the sample also ensures that it is predetermined with respect to subsequent changes in economic concessions and political alignment. A classification based on later DCA status would

[10]The European Union is one such case. It is classified as a transactional partner because Germany, whose data we use for the European Union, has no DCA with the U.S., although most EU member states are NATO allies. Classifying the European Union as an ally instead, which is equivalent to excluding it from the sample of transactional partners, leaves the point estimates nearly unchanged (Appendix B.3).

raise the concern that countries sign DCAs with the U.S. as a consequence of changes in their alignment during the sample period. As Table 2 shows, five countries change status between 1995 and 2010, the last year covered by the DCA dataset: Colombia, Indonesia, New Zealand, and Singapore sign DCAs with the U.S., while Brunei no longer has one.[11]

Table 2: Classification of U.S. Trading Partners

Year	Allies	Transactional Partners
1995	Australia, Brazil, Brunei†, Canada, India, Israel, Japan, Korea, Switzerland, Turkey (10 countries)	Argentina, Cambodia, Chile, China, Colombia*, Costa Rica, European Union, Iceland, Indonesia*, Laos, Malaysia, Mexico, Morocco, Myanmar, New Zealand*, Norway, Peru, Philippines, Russia, Saudi Arabia, Singapore*, South Africa, Thailand, Tunisia, Vietnam (25 countries)
2010	Australia, Brazil, Canada, Colombia, India, Indonesia, Israel, Japan, Korea, New Zealand, Singapore, Switzerland, Turkey (13 countries)	Argentina, Brunei, Cambodia, Chile, China, Costa Rica, European Union, Iceland, Laos, Malaysia, Mexico, Morocco, Myanmar, Norway, Peru, Philippines, Russia, Saudi Arabia, South Africa, Thailand, Tunisia, Vietnam (22 countries)

Notes: Allies are countries with a defense cooperation agreement (DCA) with the U.S. in the indicated year, based on the Defense Cooperation Agreement Dataset (Kinne, 2020). All other countries in the sample are classified as transactional partners. The 1995 classification is our baseline; 2010 is the last year covered by the dataset. *Transactional partner in 1995 that is classified as an ally in 2010. †Ally in 1995 that is classified as a transactional partner in 2010.

3.4 Descriptive Evidence

In this section, we provide descriptive evidence on our measures of economic concessions and political alignment. While the theoretical framework is general, our empirical analysis focuses on the relationship between the United States as the hegemon and periphery countries. Our focus on the U.S. is motivated by both its role in the postwar international hierarchy (Lake, 2009) and its empirical importance in the exchange of economic concessions (Figure 4). Accordingly, the descriptive patterns presented here are constructed for bilateral relationships between the United States and its trading partners.

Economic Concessions We begin by describing the distribution of economic concessions between the United States and its trading partners. Throughout, economic concessions are expressed in constant 1995 U.S. dollars (Section 3.1). Figure 2 plots

[11] We show in Appendix D.2 that our results are similar when countries are instead classified based on their DCA status in 2010.

the distribution of our concession measure in 1995 and 2018, representing the beginning and end of our sample period. We observe substantial heterogeneity across countries, with some countries consistently receiving large net concessions from the United States, while others receive relatively little or even provide net concessions. In addition, U.S. concessions to its trading partners have generally increased over time.

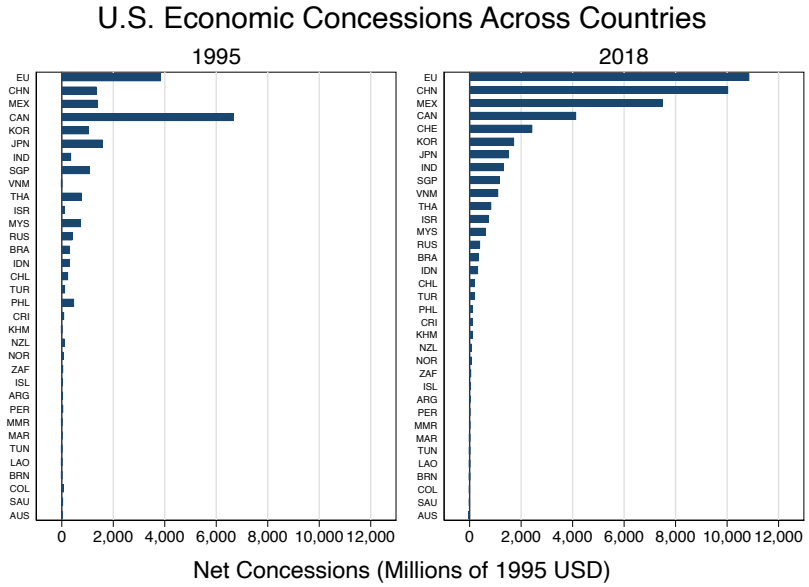


Figure 2: Countries are ordered by their 2018 levels of economic concessions. Positive values denote net concessions granted by the United States, while negative values represent net concessions received by the United States.

The multilateral net concessions of the United States shown in Figure 3 display a clear upward trend over time, indicating a gradual increase in net economic concessions. This pattern is briefly disrupted during the global financial crisis of 2008–2009, when concessions decline before resuming their upward trajectory. This time-series evidence complements the cross-sectional patterns above by showing that economic concessions not only differ across countries but also increase systematically over time.

Although Figures 2 and 3 describe the concessions the U.S. grants to individual trading partners and to the world as a whole, respectively, they do not speak to how the U.S. stands in the broader network as a source of concessions. Because economic concessions arise from a multilateral system of bilateral relationships, they naturally generate a directed network in which countries simultaneously grant concessions to some partners while receiving concessions from others.

Figure 4 shows the central role of the U.S. in the global trade concession network. In 1995, the U.S. was the central granter of concessions to the rest of the world, especially to Canada and the EU. In 2018, the U.S. remained the most important country as a granter of concessions. In particular, the EU, China, and Mexico were among the countries that received substantial concessions from the U.S. China did not play an important role as

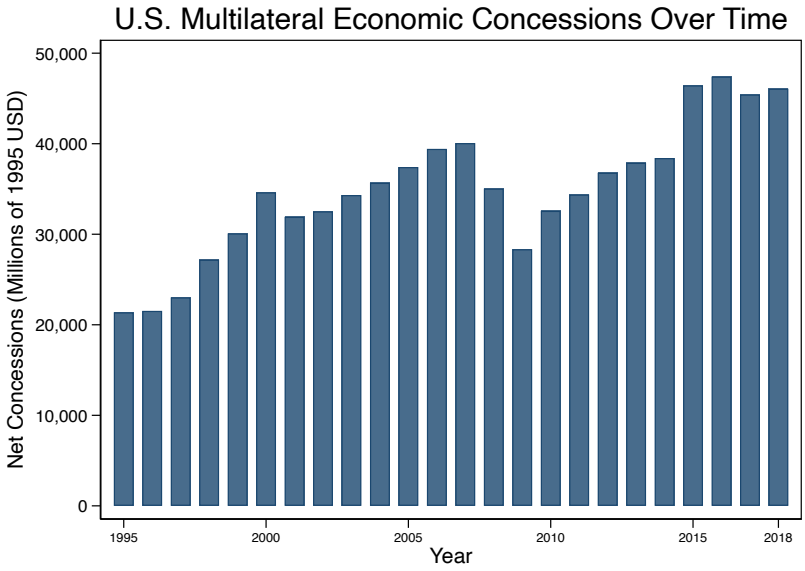


Figure 3: U.S. multilateral economic concessions over time. The figure plots the annual total of net economic concessions granted by the United States to its trading partners from 1995 to 2018. Positive values indicate net concessions granted by the United States. The series exhibits a clear upward trend, with a temporary decline during the global financial crisis of 2008–2009.

a concession granter in 1995, but by 2018 it had become a more prominent granter of concessions, especially to Korea.

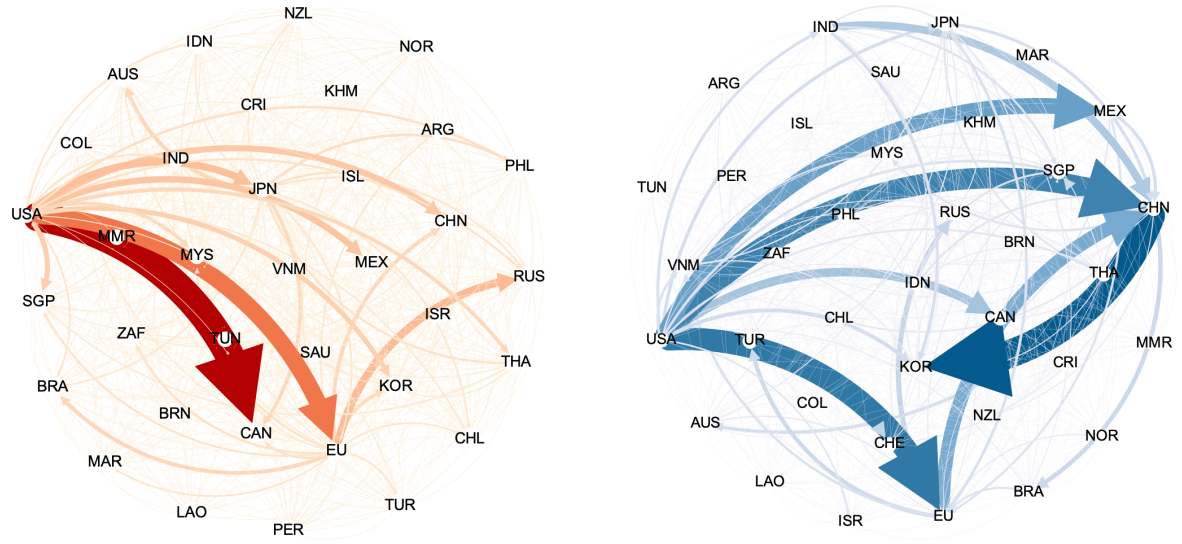
To characterize each country's role in this network, we construct authority and hub scores, which distinguish systematic granters from systematic recipients of economic concessions across all bilateral relationships. The HITS algorithm provides a natural measure of network centrality given that concession flows are directional.[12] Because our focus is on identifying hegemonic granters, we emphasize authority scores in the discussion below. Let w_{ij} denote the bilateral economic concession granted by country i to country j. The authority and hub scores are recursively defined as

$$a_i = \sum_j w_{ij} h_j, \tag{18}$$

$$h_j = \sum_i w_{ij} a_i. \tag{19}$$

In matrix notation, letting $W = [w_{ij}]$ denote the weighted concession network,

[12]The concession network is constructed using only positive concession flows. Because economic concessions are antisymmetric, i.e., $NC_{ij} = -NC_{ji}$, each country pair contributes a single directed edge from the granting country to the receiving country. Including both directions would therefore duplicate the same bilateral relationship without adding information.



(a) 1995 (b) 2018

Figure 4: Network of Net Bilateral Tariff Concessions

Notes: Arrows point from concession granters to recipients. Edge thickness and shading increase with the magnitude of net economic concessions. Only positive concession flows are shown.

$$a = Wh, \tag{20}$$

$$h = W'a. \tag{21}$$

which implies

$$a = WW'a, \tag{22}$$

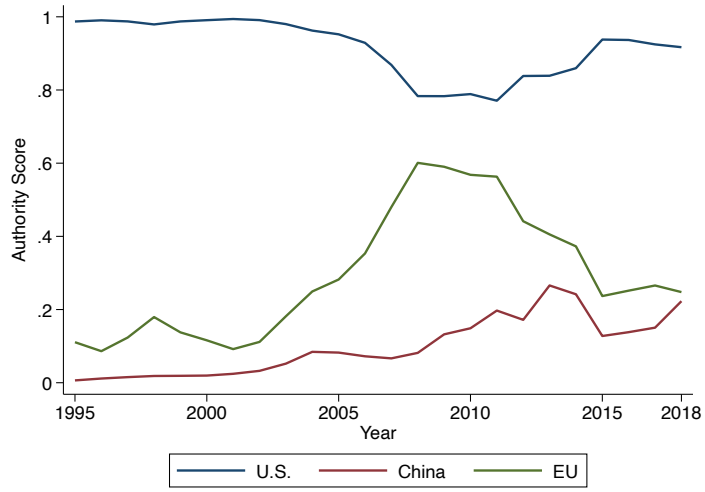
$$h = W'Wh. \tag{23}$$

Thus, authority scores correspond to the dominant eigenvector of WW' and summarize countries that systematically grant economic concessions, while hub scores correspond to the dominant eigenvector of $W'W$ and summarize countries that systematically receive economic concessions.[13]

Figure 5 presents the evolution of authority scores for the major economies over the sample period. The U.S. consistently exhibits the highest authority score throughout the sample period, indicating that it occupies the most central position as a granter of economic concessions within the international concession network. By contrast, China's authority score rises gradually over the sample period, indicating that China emerged as an increasingly central granter of economic concessions. Even in 2018, however, the U.S.

[13]Within each year, the authority and hub scores are normalized to have unit Euclidean norm.

authority score remains well above that of any other economy, including China. This provides support for treating the U.S. as the hegemonic country in the empirical analysis that follows.



Top 5 Countries

	Authority		Hub	
Rank	1995	2018	1995	2018
1	USA	USA	Canada	China
2	Japan	EU	EU	EU
3	EU	China	Japan	Mexico
4	Thailand	India	China	Korea
5	Korea	Japan	Mexico	Canada

Figure 5: Authority scores of major economies. The table reports the top five countries by authority and hub scores in 1995 and 2018.

Political Alignment We measure political alignment with the U.S. using the S-score of UNGA voting similarity. Figure 6 plots the average S-score with the U.S. for allies and transactional partners, separately for all votes, Important votes, and Not Important votes. Allies are more aligned with the U.S. than transactional partners across all vote categories. Both groups, however, display strong common movements over time, reflecting changes in the set of resolutions voted on and in the U.S. position on them, rather than changes in partner countries' alignment. Our empirical specification absorbs these common movements through year fixed effects. Alignment on Important votes is more volatile, as relatively few resolutions are designated as important in each year.

Our analysis relies on within-country variation over time, which arises as existing tariff schedules are revalued with changing trade patterns. Table 3 reports the standard deviations of political alignment and economic concessions net of country and year fixed effects. Both variables vary substantially within countries in both groups. Political alignment varies more among allies than among transactional partners, and economic concessions vary somewhat less, although their variation among allies is still about two-thirds of that among transactional partners. The absence of a relationship among allies documented below is therefore unlikely to reflect a lack of variation in either variable.

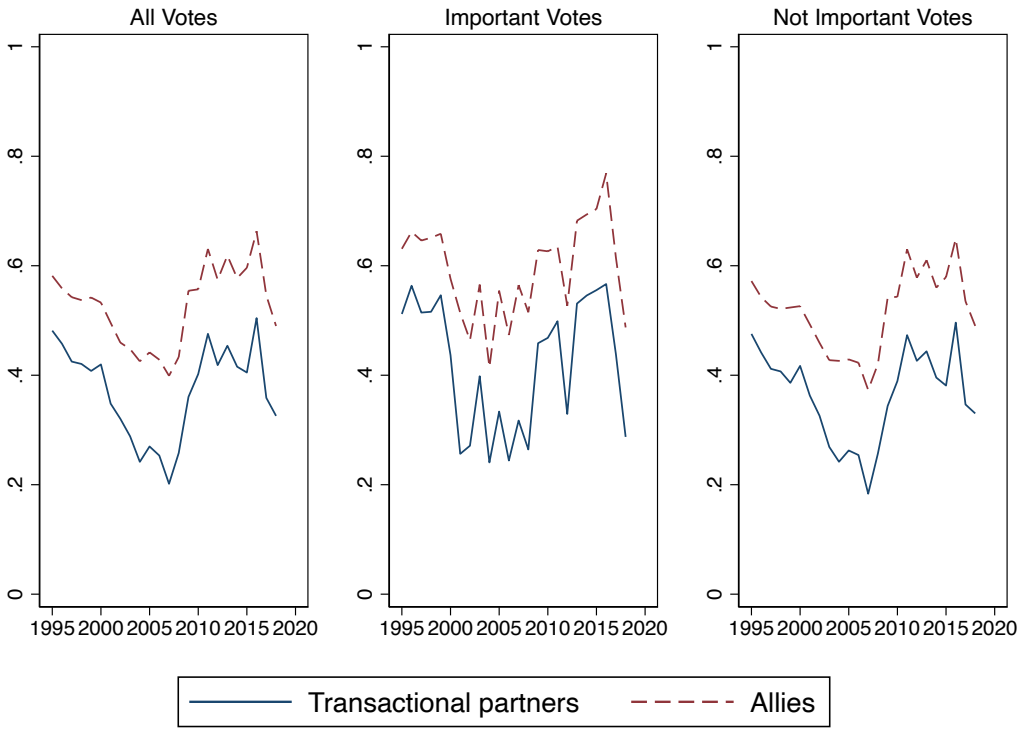


Figure 6: S-score with the U.S. by Relationship Type and Vote Category
Notes: Each line plots the annual average S-score with the U.S. across countries in each group. Allies are countries with a defense cooperation agreement with the U.S. as of 1995.

Table 3: Within-Country Variation in Political Alignment and Economic Concessions

	S-score	**NC**	**Countries**
Transactional partners	0.029	0.82	25
Allies	0.047	0.56	10

Notes: Each cell reports the standard deviation of the residual from regressing the variable on country and year fixed effects in the pooled sample. The S-score is computed over all recorded UNGA votes; the same pattern across groups holds when the S-score is computed separately over Important and Not Important votes. Economic concessions (NC) are measured in billions of 1995 USD, deflated by the U.S. GDP deflator.

3.5 Empirical Specification

We first present our regression specification, which characterizes how periphery countries adjust their political alignment in response to changes in economic concessions. We then describe the construction of our instrument, based on a gravity model of trade, which addresses the endogeneity concern discussed above.

3.5.1 OLS Estimation

Our model predicts that the periphery country adjusts its political alignment in response to the changes in economic concessions in order to sustain the exchange relationship with the hegemon. Therefore, we exploit within-country variation over time to examine this adjustment mechanism.

$$S^{l}_{j,us,t} = \beta_0 + \beta_1 NC_{j,us,t} + \beta_2 PTA_{j,us,t} + \beta_3 \ln(\text{GDP share}_{j,t}) + \delta_j + \gamma_t + \epsilon_{j,t}, \tag{24}$$

where $S^{l}_{j,us,t}$ is the S-score of UNGA voting similarity between country j and the U.S. in vote category $l \in \{\text{All}, \text{Important}, \text{Not Important}\}$, and $NC_{j,us,t}$ denotes the economic concessions granted by the U.S. to country j in year t. $PTA_{j,us,t}$ is an indicator equal to one if a preferential trade agreement is in force between country j and the U.S. in year t, and zero otherwise. We include this variable to account for discrete changes in bilateral tariffs which may coincide with changes in economic concessions. The variable $\ln(\text{GDP share}_{j,t})$ denotes the log of country j's GDP relative to U.S. GDP. Because economic concessions are measured in dollar levels rather than relative to the size of the partner's economy, the same concession represents a smaller benefit for a larger economy, and its magnitude tends to grow with the partner's economy because it scales with bilateral trade flows. We control for relative GDP to absorb changes in alignment associated with changes in a partner's economic size, and we examine in Section 3.6.3 whether the response of alignment to a given concession varies with relative size, as the model predicts. Finally, δ_j and γ_t denote country and year fixed effects, respectively. Country fixed effects absorb time-invariant differences across countries, while year fixed effects absorb common shocks and aggregate time trends.

The model's central prediction is that $\beta_1 > 0$: countries facing larger economic concessions from the U.S. are predicted to align more closely with the U.S., consistent with the hegemon's sustainability constraint. Two distinctions sharpen this prediction. First, this relationship should hold for transactional partners of the U.S. but not for its allies, whose alignment is less contingent on economic concessions. Second, because countries adjust their alignment first in low-cost categories, the estimated effect should be larger for Not Important votes than for Important votes.

A natural concern is that the estimated relationship between $NC_{j,us,t}$ and $S^{l}_{j,us,t}$ may instead reflect a common driver that affects both bilateral trade patterns, and hence the realized value of economic concessions, and UNGA voting simultaneously. As discussed in Section 2.3, because tariff schedules are largely fixed outside of WTO accession or subsequent PTAs, changes in $NC_{j,us,t}$ are driven mainly by macroeconomic forces such as trade imbalances rather than by renegotiated tariff commitments. Our specification also includes country fixed effects δ_j to absorb time-invariant components. Although these

facts mitigate some endogeneity concerns, time-varying omitted variables could still affect $NC_{j,us,t}$ and $S^l_{j,us,t}$ simultaneously. For example, investment policies promoting FDI or supply-chain integration may shift both trade patterns and political relations, and a change in government may shift a country's baseline alignment with the U.S. while also altering its economic policies. We address the latter by controlling for executive ideology in robustness specifications.

Another concern is that $S^l_{j,us,t}$ may affect $NC_{j,us,t}$, creating a reverse-causality problem. The U.S. may adjust its economic concessions in response to changes in a periphery country's political alignment, which is the opposite direction of causality from that predicted by our model. We therefore complement the OLS specification with an instrumental-variables approach, described next.

3.5.2 Instrumental-Variable Specification

To address the residual omitted-variable and reverse-causality concerns discussed above, we construct an instrument for bilateral economic concessions from a gravity model of trade following Feyrer (2019), which exploits quasi-exogenous variation in global air transport costs.[14] First, we estimate a gravity equation relating the bilateral expenditure shares of importer j from exporter i in sector k at time t ($\lambda^k_{ij,t}$), to sea distance and great-circle (air) distance, allowing the coefficients on each distance measure to vary over time. Second, we feed these predicted expenditure shares into the structural trade model, holding aggregate world income fixed at its observed level and allowing income and expenditure to be reallocated across countries, to construct predicted economic concessions, $NC^*_{j,us,t}$. Third, we use $NC^*_{j,us,t}$ as an instrument for observed economic concessions, $NC_{j,us,t}$. Finally, we re-estimate Equation (24) by two-stage least squares, instrumenting $NC_{j,us,t}$ with $NC^*_{j,us,t}$.

We describe each step in more detail below.[15] The first step is to estimate the following log-linear gravity equation for sectoral expenditure shares ($\lambda^k_{ij,t}$):

$$\ln \lambda^k_{ij,t} = \delta^k_{ij} + \gamma^k_{j,t} + \gamma^k_{i,t} + \beta^k_t \ln(\text{airdist}_{ij}) + \nu^k_t \ln(\text{seadist}_{ij}) + \varepsilon^k_{ij,t}, \qquad i \neq j \tag{25}$$

where airdist_{ij} is the population-weighted average great-circle distance between countries i and j, and seadist_{ij} is the least-cost sea distance between them. The coefficients β^k_t and ν^k_t capture the elasticities of expenditure shares with respect to air and sea distance in year t and sector k, respectively. Beyond the relative importance of the two distance measures, other determinants of trade costs are captured by a set of fixed effects, and

[14] More closely related to our setting, Kleinman et al. (2024) use the same source of variation to identify the effect of bilateral economic exposure on political alignment, including UNGA voting similarity.

[15] Appendix A provides further details.

$\varepsilon^k_{ij,t}$ is a stochastic error. The fitted values from this regression are exponentiated and rescaled to satisfy the model's adding-up constraint. Because our second stage covers only U.S.–partner pairs, it cannot include partner-by-year fixed effects. We therefore hold each country's domestic expenditure share at its 1995 value, so that changes in a partner's import openness, which partly reflect its own trade policy, do not enter the instrument, while changes in exporters' sectoral competitiveness remain.[16]

In the second step, we map the fitted expenditure shares, $\lambda^{k*}_{ij,t}$, into dollar-valued counterfactual trade flows that can be used to compute economic concessions. Because $\lambda^{k*}_{ij,t}$ determines expenditure shares but not expenditure levels, an additional normalization is required to recover dollar-valued counterfactual trade flows. We hold aggregate world income in each year fixed at its observed level and use the structural trade model to reallocate income and expenditure across countries consistently with the fitted expenditure shares, $\lambda^{k*}_{ij,t}$. Taking this counterfactual trade allocation as the new baseline economy, we compute predicted economic concessions, $NC^*_{j,us,t}$, following the same procedure as in Section 2.1, using the noncooperative (Nash) and actual (cooperative) tariff schedules.

Third, we use the predicted economic concessions, $NC^*_{j,us,t}$, as an instrument for observed economic concessions, $NC_{j,us,t}$.[17] This constitutes the first-stage regression of our instrumental-variables procedure and generates the fitted values of economic concessions, $\widehat{NC}_{j,us,t}$:

$$NC_{j,us,t} = \pi_0 + \pi_1 NC^*_{j,us,t} + \pi_2 \ln(\text{GDP share}_{j,t}) + \pi_3 PTA_{j,us,t} + \delta_j + \gamma_t + u_{j,t} \qquad (26)$$

Finally, we estimate Equation (24) on the sample of transactional partners by two-stage least squares, instrumenting $NC_{j,us,t}$ with $NC^*_{j,us,t}$. We also estimate the same specification on allies and on the pooled sample for comparison. Standard errors are clustered at the country level, as in our OLS specification. We report the cluster-robust Kleibergen–Paap rk Wald F-statistic to assess instrument strength and the Anderson–Rubin test, which remains valid when instruments are weak, for inference.[18]

The validity of this instrument rests on an exclusion restriction. Because domestic shares are held at their 1995 values, the time variation in predicted concessions comes from two sources: changes in the relative importance of air and sea distance, which reflect a common global trend in transportation technology, and changes in exporters' sectoral

[16] We also hold at their 1995 values the shares of country pairs with zero observed trade or without sea-distance data.

[17] Specifically, we regress $NC_{j,us,t}$ on $NC^*_{j,us,t}$ together with the same controls and fixed effects as in Equation (24), implemented via a Frisch–Waugh–Lovell procedure with standard errors clustered at the country level.

[18] With 25 clusters, the cluster-robust Kleibergen–Paap rk LM test of underidentification has limited power, and its p-values exceed conventional thresholds in some specifications despite first-stage F-statistics well above conventional thresholds.

competitiveness, captured by exporter-by-sector-by-year fixed effects, which shift each exporter's sales in a given sector to all destinations alike. Our identifying assumption is that these changes affect a partner's alignment with the U.S. only through their effect on economic concessions. Reverse causality is unlikely to violate this assumption, since changes in sectoral competitiveness that raise a country's sectoral exports to all markets are unlikely to be caused by its alignment with the U.S. The remaining concern is that a common factor, such as domestic reform, could move both a partner's competitiveness and its foreign policy. We address this concern through the falsification tests described below.

A potential concern in our setting is that the identifying variation shifts not only the value of tariff concessions but also bilateral trade exposure more broadly, which may itself affect political alignment. Indeed, Kleinman et al. (2024) show that increased economic dependence raises political alignment. If such a general integration channel drove our estimates, it should operate regardless of the nature of the bilateral relationship and regardless of the political cost of a vote. Our heterogeneity analyses therefore serve as falsification tests. First, a general integration channel should shift alignment similarly across vote categories, whereas our model predicts a stronger response in low-cost votes. Second, a general integration channel should raise the alignment of allies as well as transactional partners, whereas our model predicts that the relationship arises only among transactional partners. Allies thus provide a natural placebo sample: the same identifying variation shifts their economic concessions, but the exchange mechanism is not expected to operate. A violation of the exclusion restriction would therefore require the identifying variation to affect the alignment of transactional partners, but not allies, and to do so disproportionately in low-cost votes, through a channel other than economic concessions. While such a channel cannot be ruled out entirely, these patterns substantially narrow the class of potential confounders.

3.6 Regression Results

3.6.1 OLS Estimation

Panel A of Table 4 reports the OLS estimates for transactional partners, using voting similarity across all votes. The results are consistent with the model's central prediction. The estimated coefficient on economic concessions is positive and statistically significant across all specifications, including the lagged specifications in Columns (5) and (6). The coefficient of 5.82 in Column (1) implies that a \$1 billion increase in $NC_{j,us,t}$ is associated with a 0.0058 increase in voting similarity with the U.S. Put differently, a one-standard-deviation increase in economic concessions corresponds to approximately a 0.17-standard-deviation increase in political alignment, after residualizing both variables with respect to country and year fixed effects.

Table 4: Economic Concessions and Political Alignment: OLS Estimates

Panel A. Transactional Partners						
	(1)	(2)	(3)	(4)	(5)	(6)
NC	5.82***	5.54***	5.52***	5.56***		
	(1.16)	(1.03)	(1.18)	(1.83)		
NC_{t-1}					4.65***	
					(1.49)	
NC_{t-2}						3.53*
						(1.80)
ln(GDP share)		0.01	0.01	0.02	0.00	0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA			-0.00	-0.01	-0.00	-0.00
			(0.01)	(0.01)	(0.01)	(0.01)
Center				-0.00		
				(0.01)		
Left				-0.01		
				(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	25	19	25	25
Observations	599	599	599	388	573	548
Within R^2	0.0277	0.0325	0.0325	0.1042	0.0207	0.0125
Panel B. Pooled Sample: Transactional Partners and Allies						
	(1)	(2)	(3)	(4)	(5)	(6)
NC	-1.42	-1.50	-1.27	-0.83		
	(5.73)	(5.62)	(5.84)	(5.29)		
NC_{t-1}					-2.30	
					(5.94)	
NC_{t-2}						-3.49
						(6.12)
ln(GDP share)		0.00	0.00	0.01	-0.00	-0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA			0.01	0.02	0.01	0.01
			(0.02)	(0.02)	(0.02)	(0.01)
Center				-0.02**		
				(0.01)		
Left				-0.03***		
				(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	35	35	35	27	35	35
Observations	832	832	832	554	796	761
Within R^2	0.0009	0.0010	0.0042	0.0970	0.0068	0.0105

Notes: Panel A restricts the sample to transactional partners of the U.S., excluding countries classified as allies as of 1995. Panel B pools transactional partners and allies. The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes, measured on the [0,1] scale. NC is measured in trillions of 1995 USD, deflated by the U.S. GDP deflator. Column (1) includes country and year fixed effects. Column (2) adds relative economic size, measured by ln(GDP share). Column (3) adds preferential trade agreements (PTA). Column (4) additionally includes executive ideology (Center and Left, with Right omitted as the reference category); because this control induces substantial missing data, executive ideology is treated as a robustness check. Columns (5) and (6) replace contemporaneous economic concessions with one- and two-period lags, respectively, building on the specification in Column (3); Appendix Table 20 reports longer lags for transactional partners. Standard errors robust to heteroskedasticity and clustered at the country level are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The persistence of the relationship under lagged economic concessions is also informative. The estimated coefficient remains positive at one- and two-year lags in Columns (5) and (6), statistically significant at the 1% and 10% levels, respectively, and declines in magnitude as the lag lengthens; at longer lags, the estimates remain positive but become smaller and less precise (Appendix Table 20). This pattern suggests that the relationship between economic concessions and political alignment extends beyond a purely contem-

poraneous association. We also examine the reverse relationship by regressing $NC_{j,us,t}$ on lagged political alignment (Appendix E.2). Lagged political alignment is only marginally associated with economic concessions ($p = 0.08$), and this association disappears once we control for lagged economic concessions, which are highly persistent. In contrast, lagged economic concessions continue to predict political alignment, at the 5% level, after controlling for lagged alignment. While this asymmetry does not by itself rule out reverse causality, it is consistent with the direction of adjustment implied by our model, and we address the remaining concern using the instrumental-variables strategy described below.

Next, we examine how the relationship changes when the distinction between transactional partners and allies is ignored. Panel B of Table 4 re-estimates Equation (24) on the pooled sample of transactional partners and allies. The contemporaneous coefficients on economic concessions are close to zero, ranging from -1.50 to -0.83, and none is statistically significant. Pooling the two groups thus masks the relationship among transactional partners, consistent with the model's prediction that the exchange relationship operates among transactional partners but not among allies.

Finally, we re-estimate Equation (24) using voting similarity computed separately over Important and Not Important votes. Because our model predicts that countries adjust their alignment first in low-cost categories, we expect the coefficient on economic concessions to be larger for Not Important votes than for Important votes. Table 5 reports the results. In Panel A, the contemporaneous estimates for Important votes are negative in all specifications. They are marginally significant at the 10% level in Columns (1) and (2), but become statistically insignificant once we control for PTAs in Columns (3) and (4). In Panel B, by contrast, the estimates for Not Important votes are positive and statistically significant across all specifications, and larger than their counterparts for all votes in Panel A of Table 4. The same pattern holds under lagged economic concessions: the estimates remain positive and statistically significant for Not Important votes at one- and two-year lags, whereas those for Important votes remain negative and are marginally significant only at the two-year lag. These results support the model's prediction that transactional partners respond to economic concessions primarily by adjusting their alignment in low-cost votes, while their alignment in high-cost votes does not rise.

3.6.2 2SLS Estimation

While the OLS estimates in Section 3.6.1 are consistent with the model's predictions, they remain subject to the endogeneity concerns discussed in Section 3.5.2. We therefore turn to the instrumental-variables strategy developed above, which isolates variation in economic concessions arising from changes in transportation technology and in exporters' sectoral competitiveness rather than from bilateral political developments.

Table 5: Economic Concessions and Political Alignment by Vote Category: OLS Estimates

Panel A. Important Votes						
	(1)	(2)	(3)	(4)	(5)	(6)
NC	-4.48*	-4.49*	-4.02	-4.29		
	(2.56)	(2.59)	(2.55)	(3.50)		
NC_{t-1}					-5.17	
					(3.77)	
NC_{t-2}						-8.05*
						(4.37)
ln(GDP share)		0.00	0.00	0.01	-0.00	-0.00
		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
PTA			0.01	-0.01	0.01	0.01
			(0.03)	(0.02)	(0.03)	(0.03)
Center				0.01		
				(0.02)		
Left				0.01		
				(0.02)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	25	19	25	25
Observations	598	598	598	388	572	547
Within R^2	0.0029	0.0029	0.0046	0.0075	0.0068	0.0122
Panel B. Not Important Votes						
	(1)	(2)	(3)	(4)	(5)	(6)
NC	7.10***	6.81***	6.78***	6.77***		
	(1.07)	(0.93)	(1.11)	(1.74)		
NC_{t-1}					6.13***	
					(1.33)	
NC_{t-2}						5.31***
						(1.64)
ln(GDP share)		0.01	0.01	0.02	0.00	0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA			-0.00	-0.00	-0.00	-0.00
			(0.01)	(0.01)	(0.01)	(0.01)
Center				-0.00		
				(0.01)		
Left				-0.02*		
				(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	25	19	25	25
Observations	599	599	599	388	573	548
Within R^2	0.0399	0.0446	0.0447	0.1221	0.0341	0.0257

Notes: See notes to Table 4. The sample consists of transactional partners of the U.S. In Panel A, voting similarity is computed over Important votes; in Panel B, it is computed over Not Important votes. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Panel A of Table 6 reports the 2SLS estimates for transactional partners. The estimated coefficients on contemporaneous economic concessions are positive and statistically significant in Columns (1)–(3), ranging from 4.85 to 5.57. These estimates are somewhat smaller than, but close to, their OLS counterparts in Table 4, which range from 5.52 to 5.82.[19] When we additionally control for executive ideology, which reduces the sample to 19 countries, and when we use lagged economic concessions, the coefficients remain positive but are less precisely estimated and no longer statistically significant. The first stage is strong across specifications, with Kleibergen–Paap F-statistics well above conventional thresholds, and the weak-instrument-robust Anderson–Rubin test rejects the null of no effect in Columns (1)–(3).

[19]China accounts for a large share of the variation in economic concessions among transactional partners. Excluding China, the 2SLS estimates are larger, although the first stage is weaker (Appendix B.3).

Table 6: Economic Concessions and Political Alignment: 2SLS Estimates

Panel A. Transactional Partners						
	(1)	(2)	(3)	(4)	(5)	(6)
NC	5.57***	4.87**	4.85**	4.42		
	(1.53)	(2.16)	(2.20)	(3.45)		
NC_{t-1}					3.57	
					(2.62)	
NC_{t-2}						2.32
						(2.46)
ln(GDP share)		0.01	0.01	0.02	0.00	0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA			-0.00	-0.01	-0.00	-0.00
			(0.01)	(0.01)	(0.01)	(0.01)
Center				-0.00		
				(0.01)		
Left				-0.01		
				(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	25	19	25	25
Observations	599	599	599	388	573	548
Kleibergen–Paap F	199.34	195.27	211.15	208.08	241.02	334.14
Anderson–Rubin p-value	<0.01	0.04	0.05	0.23	0.20	0.36
Panel B. Pooled Sample						
	(1)	(2)	(3)	(4)	(5)	(6)
NC	-4.81	-5.21	-5.14	-4.85		
	(8.73)	(8.65)	(8.85)	(7.54)		
NC_{t-1}					-6.59	
					(9.51)	
NC_{t-2}						-7.60
						(9.78)
ln(GDP share)		0.00	0.00	0.01	-0.00	-0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA			0.01	0.02	0.01	0.01
			(0.02)	(0.02)	(0.02)	(0.01)
Center				-0.01**		
				(0.01)		
Left				-0.03***		
				(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	35	35	35	27	35	35
Observations	832	832	832	554	796	761
Kleibergen–Paap F	326.63	220.21	237.24	240.36	267.26	266.59
Anderson–Rubin p-value	0.58	0.54	0.56	0.52	0.48	0.43

Notes: $NC_{j,us,t}$ (and its lags) is instrumented by the gravity-based predicted measure $NC^{*}_{j,us,t}$ (and its lags) described in Section 3.5.2. Panel A restricts the sample to transactional partners of the U.S., excluding countries classified as allies as of 1995. Panel B pools transactional partners and allies. The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes, measured on the [0,1] scale. NC and NC^{*} are measured in trillions of 1995 USD, deflated by the U.S. GDP deflator. Column (1) includes country and year fixed effects. Column (2) adds relative economic size, measured by ln(GDP share). Column (3) adds preferential trade agreements (PTA). Column (4) additionally includes executive ideology (Center and Left, with Right omitted as the reference category). Columns (5) and (6) replace contemporaneous economic concessions with one- and two-period lags, respectively, building on the specification in Column (3). Standard errors clustered at the country level are reported in parentheses. The Kleibergen–Paap F-statistic assesses first-stage instrument relevance, and the Anderson–Rubin p-value reports weak-instrument-robust inference for the coefficient on economic concessions. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Panel B reports the corresponding 2SLS estimates for the pooled sample of transactional partners and allies. In contrast to Panel A, the estimated coefficients on economic concessions are negative, but imprecisely estimated, and none is statistically significant, even though the first stage remains strong.

Table 7 reports the 2SLS estimates separately for Important votes in Panel A and

Table 7: Economic Concessions and Political Alignment by Vote Category: 2SLS Estimates

Panel A. Important Votes	(1)	(2)	(3)	(4)	(5)	(6)
NC	-6.69	-6.77	-6.40	-7.26		
	(4.17)	(4.90)	(4.91)	(6.50)		
NC_{t-1}					-7.67	
					(6.01)	
NC_{t-2}						-8.09
						(7.14)
ln(GDP share)		0.00	0.00	0.01	-0.00	-0.00
		(0.02)	(0.02)	(0.03)	(0.02)	(0.02)
PTA			0.01	-0.02	0.01	0.01
			(0.03)	(0.02)	(0.03)	(0.02)
Center				0.01		
				(0.02)		
Left				0.01		
				(0.02)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	25	19	25	25
Observations	598	598	598	388	572	547
Kleibergen–Paap F	199.32	194.91	210.77	208.08	240.16	332.48
Anderson–Rubin p-value	0.10	0.17	0.19	0.27	0.20	0.27
Panel B. Not Important Votes	(1)	(2)	(3)	(4)	(5)	(6)
NC	7.12***	6.43***	6.39***	5.94*		
	(1.31)	(1.88)	(1.93)	(3.11)		
NC_{t-1}					5.25**	
					(2.27)	
NC_{t-2}						3.90*
						(1.97)
ln(GDP share)		0.01	0.01	0.02	0.00	0.00
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA			-0.00	-0.00	-0.00	-0.00
			(0.01)	(0.01)	(0.01)	(0.01)
Center				-0.00		
				(0.01)		
Left				-0.02*		
				(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	25	19	25	25
Observations	599	599	599	388	573	548
Kleibergen–Paap F	199.34	195.27	211.15	208.08	241.02	334.14
Anderson–Rubin p-value	<0.01	<0.01	<0.01	0.09	0.04	0.07

Notes: See notes to Table 6. The sample consists of transactional partners of the U.S. In Panel A, voting similarity is computed over Important votes; in Panel B, it is computed over Not Important votes. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Not Important votes in Panel B. The results are consistent with the OLS estimates. The coefficients on economic concessions are negative and statistically insignificant across all specifications in Panel A, whereas they are positive and statistically significant across all specifications in Panel B, including the lagged specifications. The contemporaneous estimates for Not Important votes in Columns (1)–(3) range from 6.39 to 7.12, close to their OLS counterparts in Table 5. Weak-instrument-robust inference confirms the contrast between the two panels: the Anderson–Rubin test rejects the null of no effect in all columns of Panel B, but in none of the columns of Panel A.

Taken together, the 2SLS estimates reproduce the exchange structure documented by the OLS estimates. Among transactional partners, larger economic concessions are associated with closer alignment with the U.S. in the UNGA. This relationship does

not extend to allies, and it is concentrated in Not Important votes, where the domestic political cost of aligning is lower. These results support the model's prediction that transactional partners adjust their alignment with the U.S. as the realized value of tariff concessions changes, and indicate that this pattern is not driven by the endogeneity of economic concessions.

3.6.3 Heterogeneity by Partner Size

The model has an additional implication for how the response of alignment varies across partners. Its slope, $1/(\theta_{jh} z_{h,\ell})$, is smaller for partners whose foreign policy is more important to the hegemon. We proxy this importance, θ_{jh}, by country j's GDP relative to the U.S. and interact it with economic concessions. If θ_{jh} is proportional to partner size, the model implies that alignment responds to economic concessions relative to the size of the partner's economy, so that a given concession elicits a smaller response from a larger partner. Within the marginal category, the slope depends on the hegemon's valuation, $\theta_{jh} z_{h,\ell}$, and not on the partner's baseline alignment, $s^0_{jh,c}$, which affects only the level of alignment. Such differences in the level of alignment between larger and smaller partners are absorbed by country fixed effects and the direct effect of relative size, so that the interaction term captures differences in the slope.

Table 8 reports the results, with $\ln(\text{GDP share}_{j,t})$ centered at its sample mean so that the coefficient on NC measures the relationship for a partner of average size. The coefficient on the interaction term is negative in all specifications, consistent with the model's prediction. Under 2SLS in Panel B, it is statistically significant at the 1% level in all specifications; under OLS in Panel A, it is significant at the 10% level in Columns (1) and (2) and at the 5% level or better in Columns (3)–(5). The coefficient on NC is larger than its counterparts in Tables 4 and 6, indicating that the average relationship reported there is weighted toward larger partners, whose concessions vary more over time but whose alignment responds less to a given change in concessions.

3.6.4 Robustness

Throughout our empirical analysis so far, we have measured political alignment using the similarity of countries' votes in the UNGA. A limitation of vote-similarity measures is that the set of resolutions voted on changes from year to year, so that changes in measured alignment may partly reflect changes in the agenda rather than changes in countries' positions. Year fixed effects absorb agenda changes that are common to all countries, and our instrumental-variables strategy further mitigates this concern, since agenda changes that affect countries differentially are unlikely to be correlated with the variation in predicted concessions. As an additional check, we use the dynamic ideal-point estimates of Bailey et al. (2017), which are designed to be comparable over time,

Table 8: Economic Concessions and Political Alignment by Partner Size

Panel A. OLS	(1)	(2)	(3)	(4)	(5)
NC	15.11**	15.10**	18.60***		
	(5.85)	(5.93)	(5.21)		
NC × ln(GDP share)	-2.70*	-2.70*	-3.65***		
	(1.42)	(1.42)	(1.24)		
NC_{t-1}				15.18***	
				(4.75)	
$NC_{t-1} \times \ln(\text{GDP share})_{t-1}$				-2.96**	
				(1.27)	
NC_{t-2}					14.08***
					(4.73)
$NC_{t-2} \times \ln(\text{GDP share})_{t-2}$					-2.96**
					(1.35)
ln(GDP share)	0.01	0.01	0.02*	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		-0.00	-0.01	-0.00	-0.00
		(0.01)	(0.01)	(0.01)	(0.01)
Center			-0.00		
			(0.01)		
Left			-0.01		
			(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Countries	25	25	19	25	25
Observations	599	599	388	573	548
Within R^2	0.0444	0.0444	0.1391	0.0357	0.0263
Panel B. 2SLS	(1)	(2)	(3)	(4)	(5)
NC	18.38***	18.38***	23.19***		
	(3.68)	(3.71)	(3.39)		
NC × ln(GDP share)	-3.53***	-3.53***	-4.87***		
	(0.99)	(0.99)	(0.81)		
NC_{t-1}				18.59***	
				(3.93)	
$NC_{t-1} \times \ln(\text{GDP share})_{t-1}$				-3.88***	
				(1.06)	
NC_{t-2}					15.25***
					(4.37)
$NC_{t-2} \times \ln(\text{GDP share})_{t-2}$					-3.35***
					(1.17)
ln(GDP share)	0.01	0.01	0.02**	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		-0.00	-0.01	-0.00	-0.00
		(0.01)	(0.01)	(0.01)	(0.01)
Center			-0.01		
			(0.01)		
Left			-0.01		
			(0.01)		
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Countries	25	25	19	25	25
Observations	599	599	388	573	548
Kleibergen–Paap F	89.63	87.55	63.98	59.65	42.03
Anderson–Rubin p-value	<0.01	<0.01	<0.01	<0.01	<0.01

Notes: See notes to Tables 4 and 6. The sample consists of transactional partners. ln(GDP share) is centered at its sample mean, so that the coefficient on NC measures the relationship for a partner of average size. Columns (1)–(3) add PTA and executive ideology in turn; Columns (4) and (5) use one- and two-period lags, building on Column (2). In Panel B, NC and its interaction are instrumented by NC^* and its interaction with relative size; the Anderson–Rubin test is a joint test on both endogenous regressors.

and measure political alignment as the absolute distance between each country's ideal point and that of the U.S.

Table 9 reports the results using ideal-point distance as the dependent variable. Because a smaller distance indicates closer alignment with the U.S., the model predicts

Table 9: Economic Concessions and Ideal-Point Distance to the U.S.

Panel A. Transactional Partners

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	-49.14**	-50.03**	-58.69***		-70.62***	-71.71***	-82.65***	
	(19.98)	(20.52)	(16.97)		(13.94)	(14.62)	(21.19)	
NC_{t-1}				-44.28**				-59.67***
				(17.65)				(16.47)
ln(GDP share)	-0.04	-0.04	-0.10	0.02	-0.03	-0.03	-0.09	0.02
	(0.10)	(0.10)	(0.11)	(0.10)	(0.10)	(0.10)	(0.12)	(0.10)
PTA		-0.03	-0.01	-0.03		-0.04	-0.03	-0.03
		(0.07)	(0.07)	(0.07)		(0.07)	(0.07)	(0.07)
Center			0.07				0.07	
			(0.10)				(0.11)	
Left			0.13*				0.13*	
			(0.06)				(0.06)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	19	25	25	25	19	25
Observations	599	599	388	573	599	599	388	573
Kleibergen–Paap F					195.27	211.15	208.08	241.02
Anderson–Rubin p-value					<0.01	<0.01	<0.01	<0.01

Panel B. Pooled Sample

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	-24.88	-26.64	-34.76		-27.85	-28.48	-37.19	
	(26.95)	(27.77)	(23.38)		(37.79)	(39.30)	(34.68)	
NC_{t-1}				-20.78				-17.42
				(27.38)				(41.43)
ln(GDP share)	-0.04	-0.04	-0.11	0.01	-0.04	-0.04	-0.11	0.01
	(0.08)	(0.08)	(0.10)	(0.08)	(0.08)	(0.08)	(0.10)	(0.08)
PTA		-0.07	-0.12	-0.07		-0.07	-0.12	-0.07
		(0.08)	(0.10)	(0.07)		(0.08)	(0.11)	(0.07)
Center			0.09				0.09	
			(0.06)				(0.06)	
Left			0.18***				0.18***	
			(0.05)				(0.05)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	35	35	27	35	35	35	27	35
Observations	832	832	554	796	832	832	554	796
Kleibergen–Paap F					220.21	237.24	240.36	267.26
Anderson–Rubin p-value					0.47	0.48	0.30	0.68

Notes: See notes to Tables 4 and 6. The dependent variable is the absolute difference between the ideal point of country j and that of the U.S. in year t, based on the dynamic ideal-point estimates of Bailey et al. (2017) using all recorded UNGA votes. Higher values indicate greater distance from the U.S., so that a negative coefficient indicates closer alignment. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

a negative coefficient on economic concessions. For transactional partners, the estimated coefficient is negative and statistically significant under both OLS and 2SLS, with Anderson–Rubin tests rejecting the null of no effect at the 1% level. The 2SLS estimates are larger in magnitude than their OLS counterparts.[20] In the pooled sample, by contrast, the estimates are smaller in magnitude and insignificant under both OLS and 2SLS.

[20]The magnitude of the effect is also comparable across the two measures. In a specification with only country and year fixed effects, a one-standard-deviation increase in economic concessions corresponds to a decrease of approximately 0.18 standard deviations in ideal-point distance, compared with an increase of approximately 0.17 standard deviations in the S-score, after residualizing all variables with respect to country and year fixed effects.

These results indicate that our main findings are not driven by year-to-year changes in the set of resolutions voted on. Instead, they reinforce the exchange relationship between the U.S. and its transactional partners documented above.

A related question is whether our results simply reflect bilateral trade imbalances. Because tariff schedules change infrequently, much of the time variation in economic concessions comes from changes in bilateral trade imbalances.[21] Consistent with this, the trade balance itself is positively associated with political alignment, and the relationship is concentrated in Not Important votes. When we decompose economic concessions into a component driven by trade imbalances and a component that reflects the value of tariff concessions given the pattern of trade, the imbalance-driven component is positively and significantly associated with political alignment, whereas the imbalance-purged component has a similar point estimate but is imprecisely estimated (Appendix C). In our framework, both components represent changes in the realized value of tariff concessions, so that the response of alignment to trade-imbalance-driven concessions is itself consistent with the mechanism we propose.

4 Conclusion

The tariff concessions exchanged under the GATT/WTO are not reciprocal: the United States has conceded substantially more than it has received from many of its partners. This paper asks whether the United States was compensated for these net concessions in political rather than economic terms. We refer to this possibility as latent statecraft: leverage that operates through tariffs that are not imposed, because the concessions a hegemon has extended can in principle be withdrawn.

We develop a simple model in which a hegemon maintains its net economic concession to a partner only if the partner's political alignment, together with the value of any security relationship between them, compensates it for doing so. The model predicts that alignment rises with economic concessions among transactional partners, but not among allies, whose security relationship with the hegemon is sufficient on its own. The adjustment occurs first in categories in which alignment is least costly for the partner relative to its value to the hegemon. And the response to a given concession is weaker for partners whose foreign policy matters more to the hegemon.

We take these predictions to data on the United States and 35 of its trading partners over 1995–2018, measuring economic concessions as the terms-of-trade effect of bilateral tariff commitments and political alignment as voting similarity in the UN General Assembly. Because tariff schedules rarely change, most of the variation in concessions over time comes from shifting trade patterns that revalue an existing schedule. We isolate

[21] Among transactional partners, the U.S. bilateral trade balance accounts for 76 percent of the within-country variation in economic concessions.

the part of this variation that arises from changes in transportation technology and in exporters' competitiveness, using predicted concessions from a gravity model of trade following Feyrer (2019).

The evidence is consistent with each prediction. Among transactional partners, a one-standard-deviation increase in net concessions is associated with an increase of about 0.17 standard deviations in voting similarity, and the instrumental-variable estimates are close to their OLS counterparts. The relationship disappears when allies are included in the sample. The response is concentrated in votes that the U.S. Department of State does not designate as important, and it is stronger among smaller partners. Lagged concessions continue to predict alignment, whereas lagged alignment has little predictive power for concessions once their persistence is taken into account. The results are similar when alignment is measured by the distance between ideal points (Bailey et al., 2017).

These findings suggest that the political return to a tariff concession depends not on when it was negotiated but on what it is currently worth to the partner. Tariff schedules change infrequently, yet alignment tracks the revalued concession from year to year. The United States does not appear to have renegotiated tariffs to buy alignment; rather, the alignment that an existing commitment can command rises and falls with its economic value. In this sense, political alignment may compensate the United States for concessions that appear lopsided in tariff space, which offers one explanation for how a non-reciprocal trading system was sustained.

Several questions remain open. First, our sample ends in 2018, the year in which the United States began to raise tariffs openly as an instrument of foreign policy. Whether the shift from latent to explicit statecraft changes the political returns to tariff concessions is an important question for future work. Second, the same logic may apply to other large economies. China, in particular, has become an increasingly central granter of economic concessions over our sample period, and whether its concessions elicit political alignment from its partners is a natural question for future work. Third, UNGA voting is only one dimension of foreign policy. Extending the analysis to other forms of political cooperation, such as sanctions, military cooperation, or diplomatic recognition, would show how broadly latent statecraft operates.

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Appendix

A Construction of the Instrument

This appendix describes the construction of the instrument for economic concessions, $NC^{*}_{j,us,t}$, summarized in Section 3.5.2. The construction proceeds in four steps: estimating a gravity equation for sectoral expenditure shares, constructing predicted expenditure shares, solving for a counterfactual baseline equilibrium consistent with these shares, and computing economic concessions in that equilibrium.

Step 1: Gravity equation. Let $\lambda^{k}_{ij,t}$ denote the share of importer j's expenditure on sector-k goods that is spent on goods from exporter i in year t, computed from the OECD–WTO TiVA database for the 40 economies and 22 individual sectors (excluding the service sector) in our sample over 1995–2018. Following Feyrer (2019), we estimate

$$\ln \lambda^{k}_{ij,t} = \delta^{k}_{ij} + \gamma^{k}_{j,t} + \gamma^{k}_{i,t} + \beta^{k}_{t} \ln(\text{airdist}_{ij}) + \nu^{k}_{t} \ln(\text{seadist}_{ij}) + \varepsilon^{k}_{ij,t}, \qquad i \neq j, \tag{27}$$

where δ^{k}_{ij} is a country-pair-by-sector fixed effect, $\gamma^{k}_{j,t}$ and $\gamma^{k}_{i,t}$ are importer-by-sector-by-year and exporter-by-sector-by-year fixed effects, and the elasticities with respect to air and sea distance, β^{k}_{t} and ν^{k}_{t}, vary by sector and year. Air distance is the population-weighted great-circle distance from CEPII, and sea distance is the least-cost sea distance from Feyrer (2019). For the European Union, we use the distances of Germany. Because the pair fixed effects absorb all time-invariant determinants of bilateral trade costs, the distance terms capture only how the relative importance of air and sea distance changes over time. The equation is estimated on pairs with positive trade and available sea-distance data.

Step 2: Predicted expenditure shares. We compute predicted shares, $\hat{\lambda}^{k}_{ij,t}$, by exponentiating the fitted values from (27), including all estimated fixed effects. For pairs whose prediction is missing, we use their 1995 share. Let $\mathcal{F}_j$ denote the set of exporters whose shares in importer j's expenditure we hold fixed: the importer itself (domestic expenditure) and partners without sea-distance data (Brunei, Hong Kong, Kazakhstan, Laos, Switzerland, Taiwan, and the rest of the world). When the importer itself is one of these economies, all of its expenditure shares are held fixed. For exporters in $\mathcal{F}_j$, we set $\lambda^{k*}_{ij,t} = \lambda^{k}_{ij,1995}$, and we rescale the remaining predicted shares so that all shares sum to one:

$$\lambda^{k*}_{ij,t} = \frac{\hat{\lambda}^{k}_{ij,t}}{\sum_{l \notin \mathcal{F}_j} \hat{\lambda}^{k}_{lj,t}} \Big(1 - \sum_{l \in \mathcal{F}_j} \lambda^{k}_{lj,1995}\Big), \qquad i \notin \mathcal{F}_j. \tag{28}$$

Holding domestic expenditure shares at their 1995 values ensures that changes in a partner's overall import openness, which partly reflect its own trade policy, do not enter the instrument. Because our second stage includes only U.S.–partner pairs, partner-by-year fixed effects cannot absorb such changes there. The remaining time variation in $\lambda^{k*}_{ij,t}$ comes from changes in the relative importance of air and sea distance and from changes in exporters' sectoral competitiveness, captured by the exporter-by-sector-by-year fixed effects, which shift an exporter's shares in a given sector in all destinations alike.

Step 3: Counterfactual baseline equilibrium. Expenditure shares determine the allocation of each country's spending but not the level of trade flows. To obtain dollar-valued trade flows, we solve for the income levels consistent with the predicted shares. Trade flows at consumer prices are $X^{k*}_{ij,t} = \lambda^{k*}_{ij,t}\,\mu^{k}_{j,t}\,Y^{*}_{j,t}$, where $\mu^{k}_{j,t}$ is the observed share of sector k in country j's expenditure and $Y^{*}_{j,t}$ is its total expenditure. Total expenditure equals production income, tariff revenue, and the trade deficit,

$$Y^{*}_{j,t} = \sum_{m}\sum_{k}\frac{X^{k*}_{jm,t}}{1+t^{k}_{jm,t}} + \sum_{i}\sum_{k}\frac{t^{k}_{ij,t}}{1+t^{k}_{ij,t}}X^{k*}_{ij,t} + d_{j,t}\,W_t, \tag{29}$$

where $t^{k}_{ij,t}$ are applied tariffs, $d_{j,t}$ is country j's observed trade deficit as a share of world production, and W_t is world production. Because $X^{k*}_{ij,t}$ is linear in $Y^{*}_{j,t}$, (29) is a linear system in incomes, which we solve while holding world production fixed at its observed level. Tariffs, sectoral expenditure shares, and trade-deficit shares are held at their observed values, so that the counterfactual equilibrium differs from the observed one only through the predicted expenditure shares.

Step 4: Predicted economic concessions. Taking the counterfactual equilibrium as the baseline economy, we compute economic concessions exactly as in Section 2.1. For each pair of countries, we compute each country's terms-of-trade gain from cooperation by comparing the agreement outcome with a bilateral tariff war in which the two countries apply their noncooperative (Nash) tariffs to each other while all other tariffs remain at their applied levels, and define $NC^{*}_{j,us,t}$ as in (4). The predicted concession therefore uses the same tariffs, noncooperative tariffs, and model as the observed measure, and differs from it only through the trade flows.

B Robustness to Alternative Measures and Samples

B.1 Alternative Economic Concession Benchmark

Our baseline measure relies on non-cooperative (Nash) tariffs, which depend on estimated trade elasticities and can be large in some sectors. As a robustness check, we reconstruct the economic-concession measure using a uniform 50% tariff as an alternative non-cooperative benchmark, and re-estimate our main specifications using this alternative measure. Table 10 reports the results. The estimates are consistent with our baseline results. For transactional partners, the coefficients are positive and similar in magnitude to those in Tables 4 and 6; the OLS estimates are statistically significant in all specifications, and the 2SLS estimates are significant at the 5% and 10% levels in Columns (5) and (6), respectively, but not in the specifications with executive ideology or lags. For the pooled sample, by contrast, the estimates are negative but imprecisely estimated, and none is statistically significant.

Table 10: Economic Concessions and Political Alignment: 50% Non-Cooperative Benchmark

Panel A. Transactional Partners

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	5.35***	5.36***	5.35**		4.80**	4.79*	4.48	
	(1.19)	(1.30)	(1.87)		(2.31)	(2.36)	(3.44)	
NC_{t-1}				4.58**				3.64
				(1.69)				(2.71)
ln(GDP share)	0.01	0.01	0.02	0.00	0.01	0.01	0.02	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		0.00	-0.01	-0.00		-0.00	-0.01	-0.00
		(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
Center			-0.00				-0.00	
			(0.01)				(0.01)	
Left			-0.01				-0.01	
			(0.01)				(0.01)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	19	25	25	25	19	25
Observations	599	599	388	573	599	599	388	573
Kleibergen–Paap F					259.19	285.85	262.75	301.03
Anderson–Rubin p-value					0.05	0.06	0.21	0.20

Panel B. Pooled Sample

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	-0.66	-0.50	-0.41		-2.94	-2.86	-2.70	
	(4.77)	(4.94)	(4.71)		(6.60)	(6.77)	(6.03)	
NC_{t-1}				-1.35				-4.22
				(5.10)				(7.38)
ln(GDP share)	0.00	0.00	0.01	-0.00	0.00	0.00	0.01	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		0.01	0.02	0.01		0.01	0.02	0.01
		(0.02)	(0.02)	(0.02)		(0.02)	(0.02)	(0.02)
Center			-0.02**				-0.02**	
			(0.01)				(0.01)	
Left			-0.03***				-0.03***	
			(0.01)				(0.01)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	35	35	27	35	35	35	27	35
Observations	832	832	554	796	832	832	554	796
Kleibergen–Paap F					249.07	251.01	289.61	261.44
Anderson–Rubin p-value					0.66	0.68	0.66	0.57

Notes: See notes to Tables 4 and 6. Economic concessions are computed using a uniform 50% tariff as the non-cooperative benchmark; in the 2SLS columns, they are instrumented by the corresponding gravity-based predicted measure. The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

B.2 Alternative Measures of Voting Similarity

The S-score measures agreement relative to the maximum possible disagreement and therefore does not account for the possibility that two countries' votes coincide by chance, given the frequency with which each country votes yes, no, or abstain. We consider two alternative measures that adjust for chance agreement (Scott, 1955; Cohen, 1960). For each pair of countries i and j in year t, let P_{ij}^o denote the share of decisions in V_{ij}, the set of decisions on which both countries cast a recorded vote, on which the two countries cast the same vote, and let p_{ir} denote the share of decisions in V_{ij} on which country i

makes choice $r \in \{\text{yes}, \text{abstain}, \text{no}\}$. Both measures take the form

$$\text{Similarity}_{ij} = \frac{P_{ij}^{o} - P_{ij}^{e}}{1 - P_{ij}^{e}}, \tag{30}$$

where P_{ij}^{e} is the agreement expected by chance. Scott's π-score computes expected agreement from the two countries' pooled distribution of votes,

$$P_{ij}^{e,\pi} = \sum_{r} \left(\frac{p_{ir} + p_{jr}}{2} \right)^{2}, \tag{31}$$

whereas Cohen's κ-score computes it from each country's own distribution,

$$P_{ij}^{e,\kappa} = \sum_{r} p_{ir}\, p_{jr}. \tag{32}$$

Both measures equal one under perfect agreement, zero when agreement equals that expected by chance, and are negative when agreement falls below it. Unlike the S-score, which treats a yes–abstain disagreement as smaller than a yes–no disagreement, both measures treat any two different votes as a disagreement.

Tables 11 and 12 report the results. Because these measures are on a different scale from the S-score, the magnitudes of the coefficients are not directly comparable across measures. The estimates are consistent with those obtained using the S-score: economic concessions are positively and significantly associated with political alignment among transactional partners in all specifications, under both OLS and 2SLS, whereas the estimates for the pooled sample are negative but imprecisely estimated and statistically insignificant. These results are consistent with our model's prediction that the exchange relationship operates among transactional partners but not among allies.

Table 11: Economic Concessions and Political Alignment: π-score

Panel A. Transactional Partners

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	9.81***	9.49***	10.33***		10.66***	10.40***	10.33*	
	(2.87)	(3.12)	(3.03)		(3.55)	(3.54)	(5.41)	
NC_{t-1}				8.39***				8.82*
				(2.69)				(4.55)
ln(GDP share)	0.01	0.00	0.02	-0.01	0.00	0.00	0.02	-0.01
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)
PTA		-0.01	-0.01	-0.01		-0.01	-0.01	-0.01
		(0.01)	(0.02)	(0.01)		(0.01)	(0.02)	(0.01)
Center			-0.01				-0.01	
			(0.02)				(0.02)	
Left			-0.03				-0.03	
			(0.02)				(0.02)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	19	25	25	25	19	25
Observations	599	599	388	573	599	599	388	573
Kleibergen–Paap F					195.27	211.15	208.08	241.02
Anderson–Rubin p-value					<0.01	<0.01	0.08	0.07

Panel B. Pooled Sample

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	-3.94	-3.65	-2.38		-10.10	-10.01	-9.15	
	(12.30)	(12.69)	(11.37)		(18.50)	(18.78)	(16.12)	
NC_{t-1}				-6.27				-13.85
				(13.57)				(21.46)
ln(GDP share)	-0.01	-0.01	0.00	-0.02	-0.01	-0.01	0.01	-0.02
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)
PTA		0.01	0.04	0.01		0.01	0.04	0.00
		(0.03)	(0.05)	(0.03)		(0.03)	(0.05)	(0.03)
Center			-0.04**				-0.04**	
			(0.02)				(0.02)	
Left			-0.07***				-0.06***	
			(0.02)				(0.02)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	35	35	27	35	35	35	27	35
Observations	832	832	554	796	832	832	554	796
Kleibergen–Paap F					220.21	237.24	240.36	267.26
Anderson–Rubin p-value					0.58	0.59	0.57	0.52

Notes: See notes to Tables 4 and 6. The dependent variable is Scott's π-score of voting similarity between country j and the U.S., computed over all recorded UNGA votes. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 12: Economic Concessions and Political Alignment: κ-score

Panel A. Transactional Partners

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	7.82*	8.06*	9.72**		8.11***	8.32***	9.35***	
	(4.56)	(4.70)	(3.73)		(2.82)	(2.95)	(2.53)	
NC_{t-1}				7.50**				6.06**
				(3.36)				(2.48)
ln(GDP share)	-0.02	-0.02	-0.01	-0.04***	-0.02	-0.02	-0.01	-0.04***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)
PTA		0.01	0.01	0.01		0.01	0.01	0.01
		(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
Center			-0.02				-0.02	
			(0.02)				(0.02)	
Left			-0.03*				-0.03*	
			(0.02)				(0.02)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	19	25	25	25	19	25
Observations	599	599	388	573	599	599	388	573
Kleibergen–Paap F					195.27	211.15	208.08	241.02
Anderson–Rubin p-value					<0.01	<0.01	<0.01	0.01

Panel B. Pooled Sample

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	-3.25	-2.86	-1.84		-8.46	-8.34	-7.42	
	(11.32)	(11.69)	(10.73)		(15.15)	(15.50)	(13.48)	
NC_{t-1}				-5.65				-13.67
				(12.76)				(18.37)
ln(GDP share)	-0.03**	-0.03**	-0.02	-0.05***	-0.03*	-0.03*	-0.02	-0.04***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.02)	(0.02)	(0.02)	(0.01)
PTA		0.02	0.03	0.01		0.01	0.03	0.01
		(0.02)	(0.03)	(0.02)		(0.02)	(0.03)	(0.02)
Center			-0.04**				-0.04**	
			(0.01)				(0.01)	
Left			-0.05***				-0.04***	
			(0.02)				(0.02)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	35	35	27	35	35	35	27	35
Observations	832	832	554	796	832	832	554	796
Kleibergen–Paap F					220.21	237.24	240.36	267.26
Anderson–Rubin p-value					0.57	0.59	0.58	0.45

Notes: See notes to Tables 4 and 6. The dependent variable is Cohen's κ-score of voting similarity between country j and the U.S., computed over all recorded UNGA votes. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

B.3 Excluding China and the European Union

China and the European Union account for a large share of the variation in economic concessions among transactional partners. To examine whether our results are driven by either of them, we re-estimate our main specifications for transactional partners excluding each in turn. The European Union also raises a classification concern: although it is classified as a transactional partner based on Germany's DCA status, most of its member states are NATO allies. Table 13 reports the results. Excluding China (Panel A), the coefficients on economic concessions remain positive and statistically significant under both OLS and 2SLS, and are larger than those in Tables 4 and 6. Excluding China weakens the first stage, but weak-instrument-robust Anderson–Rubin tests reject the null of no effect at the 1% level in all specifications. Excluding the European Union (Panel B), the OLS and 2SLS point estimates are nearly identical to our baseline estimates. The OLS estimates remain statistically significant, whereas the 2SLS estimates are less precise and statistically significant only at the 10% level in Columns (5) and (6).

Table 13: Economic Concessions and Political Alignment: Excluding China and the European Union

Panel A. Excluding China

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	6.24***	6.19***	8.54***		8.60**	8.59**	13.19***	
	(2.04)	(2.14)	(2.55)		(3.68)	(3.68)	(3.52)	
NC_{t-1}				7.00***				9.75**
				(2.08)				(4.02)
ln(GDP share)	0.01	0.01	0.03*	0.00	0.01	0.01	0.03**	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		-0.00	-0.01	-0.00		-0.00	-0.01	-0.00
		(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
Center			-0.00				-0.00	
			(0.01)				(0.01)	
Left			-0.01				-0.01	
			(0.01)				(0.01)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	24	24	18	24	24	24	18	24
Observations	575	575	364	550	575	575	364	550
Kleibergen–Paap F					28.95	29.14	23.62	26.84
Anderson–Rubin p-value					<0.01	<0.01	<0.01	<0.01

Panel B. Excluding the European Union

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	5.60***	5.60***	5.10**		5.01*	5.00*	4.26	
	(1.19)	(1.26)	(2.24)		(2.47)	(2.48)	(3.88)	
NC_{t-1}				4.43**				3.56
				(1.80)				(2.92)
ln(GDP share)	0.01	0.01	0.02	0.00	0.01	0.01	0.02	0.00
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
PTA		-0.00	-0.01	-0.00		-0.00	-0.01	-0.00
		(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
Center			-0.00				-0.00	
			(0.01)				(0.01)	
Left			-0.01				-0.01	
			(0.01)				(0.01)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	24	24	18	24	24	24	18	24
Observations	575	575	364	550	575	575	364	550
Kleibergen–Paap F					659.69	670.92	632.71	1156.56
Anderson–Rubin p-value					0.07	0.07	0.31	0.25

Notes: See notes to Tables 4 and 6. The sample consists of transactional partners excluding China (Panel A) or the European Union (Panel B). The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

C Trade Imbalances and Economic Concessions

Because tariff schedules change infrequently, much of the time variation in economic concessions comes from changes in bilateral trade imbalances. Among transactional partners, the U.S. bilateral trade balance accounts for 76 percent of the within-country variation in economic concessions, after removing country and year fixed effects.[22] We therefore examine whether the bilateral trade balance itself yields similar results. Table 14 reports the results for transactional partners. A larger U.S. bilateral deficit is associated with greater political alignment, although the estimates become less precise when we control for executive ideology or use the lagged trade balance. The relationship is concentrated in Not Important votes, consistent with our main results.

Table 14: Trade Balance and Political Alignment

	All Votes				Important	Not Important
	(1)	(2)	(3)	(4)	(5)	(6)
Trade balance	0.32**	0.32**	0.29		-0.05	0.37***
	(0.14)	(0.14)	(0.18)		(0.34)	(0.13)
Trade balance$_{t-1}$				0.26*		
				(0.15)		
ln(GDP share)	0.01	0.01	0.02	0.00	0.00	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
PTA		0.00	-0.01	-0.00	0.01	-0.00
		(0.01)	(0.01)	(0.01)	(0.03)	(0.01)
Center			0.00			
			(0.01)			
Left			-0.01			
			(0.01)			
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	19	25	25	25
Observations	599	599	388	573	598	599

Notes: See notes to Table 4. The sample consists of transactional partners. The trade balance is country j's exports to the U.S. minus U.S. exports to country j in the calibrated baseline equilibrium, measured in trillions of 1995 USD, so that a positive value indicates a U.S. bilateral deficit. In Columns (1)–(4), the dependent variable is the S-score computed over all recorded UNGA votes; in Columns (5) and (6), it is computed over Important and Not Important votes, respectively. Column (1) controls for relative economic size; Column (2) adds PTA; Column (3) additionally controls for executive ideology; Column (4) replaces the contemporaneous trade balance with its one-period lag, building on Column (2). Columns (5) and (6) follow Column (2). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

We next examine whether our results are driven by trade imbalances alone. We decompose economic concessions into two components. The imbalance-purged component is computed from a counterfactual equilibrium in which all countries' aggregate trade imbalances are set to zero, so that it reflects the value of tariff concessions given the pattern of trade but not trade imbalances. The imbalance-driven component is the difference between actual economic concessions and the imbalance-purged component. Table 15 reports the results. The imbalance-driven component is positively and significantly associated with political alignment. The imbalance-purged component has a similar point estimate but is imprecisely estimated, so that we can neither establish its association with alignment nor distinguish it from that of the imbalance-driven component ($p = 0.63$). In our framework, both components represent changes in the realized value of tariff concessions, so that the response of alignment to the imbalance-driven component is itself

[22] The bilateral trade balance is measured as country j's exports to the U.S. minus U.S. exports to country j in the calibrated baseline equilibrium, in trillions of 1995 USD. Among allies, the trade balance accounts for only 28 percent of the within-country variation in economic concessions.

consistent with the mechanism we propose.

Table 15: Imbalance-Purged and Imbalance-Driven Economic Concessions

	(1)	(2)	(3)
NC, imbalance-purged	7.66		2.34
	(4.89)		(6.01)
NC, imbalance-driven		7.76**	7.12*
		(2.81)	(4.07)
ln(GDP share)	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)
PTA	-0.00	-0.00	-0.00
	(0.01)	(0.01)	(0.01)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Countries	25	25	25
Observations	599	599	599
p-value: equal coefficients			0.63
p-value: joint significance			<0.01

Notes: See notes to Table 4. The sample consists of transactional partners, and the dependent variable is the S-score computed over all recorded UNGA votes. The imbalance-purged component of economic concessions is computed from a counterfactual equilibrium in which all countries' aggregate trade imbalances are set to zero. The imbalance-driven component is the difference between actual economic concessions and the imbalance-purged component. Both are measured in trillions of 1995 USD. All columns control for relative economic size and PTA. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

D The Distinction between Allies and Transactional Partners

D.1 Interaction Specification

To test directly whether the relationship differs between transactional partners and allies, we estimate Equation (24) on the pooled sample, interacting economic concessions with an indicator for allies. In Table 16, the coefficient on NC captures the relationship for transactional partners, and its sum with the coefficient on $NC \times Ally$ captures the relationship for allies. Because year fixed effects and control coefficients are constrained to be common across the two groups, the coefficients for transactional partners are smaller than in Table 4. They remain positive in all specifications and are statistically significant under OLS, but not under 2SLS. The interaction terms are negative and statistically significant in all specifications, and so is the implied relationship for allies. These estimates for allies, however, should be interpreted with caution. Because the interaction term is identified only from the ten allies, conventional cluster-robust standard errors are likely to understate its uncertainty, and the smaller within-country variation in economic concessions among allies (Table 3) makes the estimates sensitive to a few observations.[23]

D.2 Alternative Classification of Allies

Our baseline classification is based on DCA status as of 1995. As an alternative, we classify countries based on their DCA status in 2010, the last year covered by the DCA dataset. Under this classification, Colombia, Indonesia, New Zealand, and Singapore are classified as allies, whereas Brunei is classified as a transactional partner (see Table 2). Table 17 reports the results for transactional partners. The estimates are consistent with our baseline results. The coefficients on economic concessions are positive and similar in magnitude to those in Tables 4 and 6; the OLS estimates are statistically significant in all specifications, and the 2SLS estimates are significant in the specifications without executive ideology or lags, mirroring the pattern in Table 6. Because the pooled sample is identical under both classifications, we do not report it separately.

D.3 Classification Based on Formal Defense Pacts

As an alternative to the DCA-based classification, we classify countries based on whether they have a formal defense pact with the U.S. in the ATOP dataset. Under this classification, 18 countries have no defense pact with the U.S. Table 18 reports the results for these countries. The point estimates are positive but smaller than our baseline estimates in Tables 4 and 6; the OLS estimates are marginally significant at the 10% level in Columns (1) and (2), whereas the 2SLS estimates and the lagged specifications are not statistically significant. This loss of precision reflects both the smaller number of countries and the reduced variation in economic concessions, as the excluded countries include several large economies that account for much of the variation in economic concessions in our sample. Moreover, as discussed in Section 3.3, most U.S. defense pacts date from the early Cold War, so this classification also excludes countries, such as most of Latin America

[23] Using the wild cluster bootstrap with Webb weights, which is designed for settings with few treated clusters, the implied relationship for allies in Column (2) is not statistically significant ($p = 0.53$), nor is the difference between allies and transactional partners ($p = 0.33$).

Table 16: Economic Concessions and Political Alignment: Interaction Specification

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	3.39**	3.87***	3.82*		2.57	3.01	2.93	
	(1.25)	(1.21)	(1.99)		(1.99)	(2.00)	(3.29)	
NC × Ally	-35.51**	-36.55**	-35.77***		-43.46***	-45.25***	-44.63***	
	(14.92)	(14.97)	(11.48)		(14.81)	(14.30)	(8.47)	
NC_{t-1}				3.13**				1.97
				(1.44)				(2.37)
NC_{t-1} × Ally				-37.25**				-46.94***
				(14.61)				(16.87)
ln(GDP share)	0.00	0.00	0.01	-0.00	0.01	0.01	0.01	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		0.01	0.03	0.01		0.01	0.03	0.01
		(0.02)	(0.02)	(0.01)		(0.02)	(0.02)	(0.01)
Center			-0.02**				-0.01**	
			(0.01)				(0.01)	
Left			-0.03***				-0.03***	
			(0.01)				(0.01)	
Implied relationship for allies								
NC + NC × Ally	-32.12**	-32.68**	-31.95**	-34.12**	-40.89***	-42.24***	-41.70***	-44.97**
	(15.02)	(15.16)	(11.61)	(14.84)	(14.80)	(14.39)	(7.79)	(17.00)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	35	35	27	35	35	35	27	35
Observations	832	832	554	796	832	832	554	796
Kleibergen–Paap F					139.46	144.15	99.01	167.51
Anderson–Rubin p-value					0.03	0.01	<0.01	0.05

Notes: See notes to Tables 4 and 6. The sample pools transactional partners and allies. *Ally* is an indicator for countries classified as allies as of 1995; its main effect is absorbed by the country fixed effects. The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. In the 2SLS columns, *NC* and *NC* × *Ally* are instrumented by the gravity-based predicted measure and its interaction with *Ally*. The Anderson–Rubin test is a joint test that the coefficients on both endogenous regressors equal zero. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

under the Rio Treaty, whose relationship with the U.S. during our sample period is better described as transactional.

D.4 Classification Based on Pre-Sample Alignment

Both the DCA- and ATOP-based classifications rely on formal security arrangements. As an alternative that does not depend on formal agreements, we classify countries based on their political alignment with the U.S. prior to our sample period. Specifically, we compute each country's average S-score with the U.S. over all recorded UNGA votes during 1990–1994 and classify countries in the top quartile of this distribution as non-transactional partners. We use the top quartile so that the share of non-transactional partners is comparable to that of allies under our baseline classification (10 of 35 countries).[24] Because this classification is based on voting behavior before our sample period, it is not affected by changes in political alignment during the sample period. Under this classification, Australia, Canada, the European Union, Iceland, Israel, Japan, New Zealand, Norway, and Russia are classified as non-transactional partners, and the remaining 25 countries as transactional partners.[25] Table 19 reports the results for transactional

[24]Using the median as the cutoff, which classifies half of the sample as non-transactional partners, yields smaller and less precise estimates.

[25]Switzerland is not classified because it did not join the United Nations until 2002.

Table 17: Economic Concessions and Political Alignment: 2010 Classification

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	5.87***	5.75***	5.63**		5.14**	5.00**	4.40	
	(1.19)	(1.34)	(1.98)		(2.30)	(2.35)	(3.56)	
NC_{t-1}				4.79***				3.59
				(1.61)				(2.73)
ln(GDP share)	0.01	0.01	0.02	0.00	0.01	0.01	0.02	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		-0.00	-0.01	-0.01		-0.01	-0.01	-0.01
		(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
Center			-0.00				-0.00	
			(0.01)				(0.01)	
Left			-0.01				-0.01	
			(0.01)				(0.01)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	22	22	17	22	22	22	17	22
Observations	527	527	356	504	527	527	356	504
Kleibergen–Paap F					198.85	210.98	217.91	241.18
Anderson–Rubin p-value					0.05	0.06	0.25	0.22

Notes: See notes to Tables 4 and 6. The sample consists of transactional partners classified based on DCA status in 2010 rather than 1995 (see Table 2). The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 18: Economic Concessions and Political Alignment: Countries without a Formal Defense Pact

	OLS			2SLS		
	(1)	(2)	(3)	(4)	(5)	(6)
NC	3.89*	3.85*		1.98	1.99	
	(2.13)	(2.18)		(2.01)	(2.00)	
NC_{t-1}			1.96			0.78
			(2.10)			(1.94)
ln(GDP share)	0.01	0.01	0.01	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA		-0.00	-0.00		-0.00	-0.00
		(0.01)	(0.01)		(0.01)	(0.01)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Countries	18	18	18	18	18	18
Observations	424	424	405	424	424	405
Kleibergen–Paap F				>100	>100	>100
Anderson–Rubin p-value				0.34	0.34	0.69

Notes: See notes to Tables 4 and 6. The sample consists of countries without a formal defense pact with the U.S. in the ATOP dataset. The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes. Columns (1) and (4) control for relative economic size; Columns (2) and (5) add PTA; Columns (3) and (6) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (5), respectively. We do not report specifications controlling for executive ideology, as data availability reduces the sample to 10 countries. The Kleibergen–Paap F-statistics exceed 100 in all specifications. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

partners. The coefficients on economic concessions are positive and similar in magnitude to those in Tables 4 and 6. The OLS estimates are statistically significant in all specifications, at the 1% level in Columns (1) and (2) and at the 10% level in Columns (3) and (4), whereas the 2SLS estimates are less precisely estimated and not statistically significant.

Table 19: Economic Concessions and Political Alignment: Classification Based on Pre-Sample Alignment

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC	4.64***	4.70***	5.50*		4.15	4.21	4.51	
	(1.43)	(1.47)	(3.14)		(2.76)	(2.78)	(4.42)	
NC_{t-1}				3.55*				2.92
				(2.02)				(3.26)
ln(GDP share)	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
PTA		0.00	0.01	0.00		0.00	0.01	0.00
		(0.01)	(0.01)	(0.01)		(0.01)	(0.01)	(0.01)
Center			-0.02*				-0.02*	
			(0.01)				(0.01)	
Left			-0.03***				-0.03***	
			(0.01)				(0.01)	
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	18	25	25	25	18	25
Observations	599	599	365	573	599	599	365	573
Kleibergen–Paap F					597.25	616.08	540.19	1003.29
Anderson–Rubin p-value					0.17	0.16	0.34	0.39

Notes: See notes to Tables 4 and 6. The sample consists of transactional partners, defined as countries whose average S-score with the U.S. over 1990–1994 is below the 75th percentile across countries in our sample. The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes. Columns (1) and (5) control for relative economic size; Columns (2) and (6) add PTA; Columns (3) and (7) additionally control for executive ideology; Columns (4) and (8) replace contemporaneous economic concessions with its one-period lag, building on Columns (2) and (6), respectively. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

E Timing and Direction of the Relationship

E.1 Longer Lags of Economic Concessions

Table 20 reports estimates in which contemporaneous economic concessions are replaced by their lags of one to four years, for transactional partners. The coefficients remain positive across all lags and decline gradually in magnitude as the lag lengthens, from 4.65 at the one-year lag to 2.24 at the four-year lag in the OLS estimates. The OLS coefficients are statistically significant through the third lag. The 2SLS point estimates follow the same declining pattern, from 3.57 at the one-year lag to 0.91 at the four-year lag, but they are less precise and are not statistically significant. This gradual decline suggests that the political returns to economic concessions persist for some time but diminish as the lag lengthens.

Table 20: Economic Concessions and Political Alignment: Longer Lags

	OLS				2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NC_{t-1}	4.65***				3.57			
	(1.49)				(2.62)			
NC_{t-2}		3.53*				2.32		
		(1.80)				(2.46)		
NC_{t-3}			2.82*				1.36	
			(1.56)				(2.16)	
NC_{t-4}				2.24				0.91
				(2.09)				(2.33)
ln(GDP share)	0.00	0.00	-0.01	-0.01	0.00	0.00	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
PTA	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	25	25	25	25	25	25	25	25
Observations	573	548	523	499	573	548	523	499
Kleibergen–Paap F					241.02	334.14	402.58	155.19
Anderson–Rubin p-value					0.20	0.36	0.53	0.69

Notes: See notes to Tables 4 and 6. The sample consists of transactional partners. The dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes. Each column replaces contemporaneous economic concessions with its lag of one to four years; in the 2SLS columns, lagged economic concessions are instrumented by the corresponding lag of the gravity-based predicted measure. All specifications control for relative economic size and PTA. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

E.2 Reverse Causality

A potential concern is that political alignment drives economic concessions rather than the reverse: the U.S. may grant larger concessions to countries that are already politically aligned with it. We examine whether past political alignment predicts current economic concessions among transactional partners. Table 21 reports the results. In Columns (1) and (2), lagged political alignment is positively associated with economic concessions, but only at the 10% level, and the two lags are not jointly significant. Because economic concessions are highly persistent, lagged alignment may partly capture past economic concessions. In Column (3), we therefore control for lagged economic concessions; the coefficient on lagged alignment becomes small and statistically insignificant. In contrast, Column (4) shows that lagged economic concessions predict current political alignment,

at the 5% level, even after controlling for lagged alignment.[26] While this asymmetry does not by itself rule out reverse causality, it is consistent with the direction of adjustment implied by our model, and we address the remaining concern using the instrumental-variables strategy in Section 3.5.2.

Table 21: Reverse Causality: Political Alignment and Subsequent Economic Concessions

	NC_t			S_t
	(1)	(2)	(3)	(4)
S_{t-1}	5.11*	3.66*	0.57	0.33***
	(2.81)	(1.82)	(0.36)	(0.09)
S_{t-2}		2.59		
		(1.75)		
NC_{t-1}			0.90***	2.59**
			(0.02)	(1.20)
ln(GDP share)	0.24	0.17	-0.10	0.00
	(0.71)	(0.65)	(0.08)	(0.01)
PTA	-0.48*	-0.45*	-0.05	-0.00
	(0.25)	(0.24)	(0.04)	(0.01)
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Countries	25	25	25	25
Observations	573	547	573	573

Notes: The sample consists of transactional partners. In Columns (1)–(3), the dependent variable is economic concessions, NC_t, measured in billions of 1995 USD. In Column (4), the dependent variable is the voting similarity (S-score) between country j and the U.S. computed over all recorded UNGA votes, and NC_{t-1} is measured in trillions of 1995 USD, as in Table 4. All specifications include country and year fixed effects. Standard errors robust to heteroskedasticity and clustered at the country level are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

[26] Because economic concessions are highly persistent, the variation in economic concessions that remains after controlling for their lagged value is limited, which may reduce the power of the test in Column (3).

F Alignment with the United States and China

A natural question is whether the relationship between U.S. concessions and alignment reflects concessions from China, and whether China's concessions elicit alignment in the same way. We regress three measures of alignment on the concessions each partner receives from the United States and from China, entered separately, and, as an alternative control, from all countries other than the United States: the S-score with the United States, the S-score with China, and each country's position between the two powers,

$$P_{j,t} = \frac{IP_{j,t} - IP_{cn,t}}{IP_{us,t} - IP_{cn,t}}, \tag{33}$$

where $IP_{j,t}$ is the ideal point of country j in year t (Bailey et al., 2017), so that $P_{j,t} = 0$ at China's position and $P_{j,t} = 1$ at that of the United States.[27] We use ideal points for this measure because they place all countries on a common dimension, so that a country's position between the two powers is well defined, and because they are designed to be comparable over time. Similarity scores, by contrast, measure agreement with each power separately and do not locate a country between them. Transactional partners are defined relative to each power: countries without a defense cooperation agreement with the United States in 1995 for alignment with the United States, and countries without one with China in 1995 for alignment with China.[28]

Table 22 reports the results. Controlling for China's concessions changes the coefficient on U.S. concessions in the S-score regression little (Column 2: 5.34, compared with 6.19 in the same sample without the China control in Table 13), and controlling instead for concessions from all countries other than the United States lowers it only slightly (Column 3: 5.07, compared with 5.52 in our baseline). Neither control is significantly associated with alignment with the United States. U.S. concessions also move partners toward the U.S. position relative to China (Column 7: 10.29). China's concessions, by contrast, are not associated with closer alignment with China (Column 5: -0.77), and U.S. concessions do not reduce it (Column 5: 5.23). Over our sample period, China's net concessions to transactional partners are negative in nearly half of partner-years, so China was not yet an alternative source of concessions for many of these countries.

[27] Some countries lie outside the interval between the two powers in some years, so that $P_{j,t}$ can fall below 0 or exceed 1. We retain these observations.

[28] China had no defense cooperation agreement with any country in our sample in 1995, so the sample for alignment with China consists of all countries other than the United States and China.

Table 22: U.S. and Chinese Concessions and Alignment with the Two Powers

	S-score with the U.S.			S-score with China		Relative position	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
NC_{us}	4.86***	5.34***	5.07***	5.49	5.23	11.53***	10.29**
	(1.55)	(1.81)	(1.09)	(7.99)	(8.24)	(3.81)	(4.83)
NC_{cn}	-1.26	-1.71		-0.64	-0.77	-2.53	-1.47
	(2.22)	(2.39)		(1.32)	(1.28)	(6.49)	(7.17)
NC_{row}			-0.93				
			(2.16)				
ln(GDP share)		0.01	0.01		-0.02		-0.03
		(0.01)	(0.01)		(0.01)		(0.03)
PTA		-0.00	0.00		0.01		0.00
		(0.01)	(0.01)		(0.01)		(0.02)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Countries	24	24	25	34	34	24	24
Observations	575	575	599	808	808	575	575

Notes: The sample consists of transactional partners of the United States in Columns 1–3 and 6–7 and of China in Columns 4–5, defined by the absence of a defense cooperation agreement with that power in 1995, excluding the United States and, except in Column 3, China. The dependent variable is the voting similarity (S-score) with the U.S. in Columns 1–3 and with China in Columns 4–5, computed over all recorded UNGA votes, and the relative position between China (0) and the United States (1), defined in Equation (33), in Columns 6–7. NC_{us}, NC_{cn}, and NC_{row} are the economic concessions granted to country j by the United States, by China, and by all countries other than the United States, measured in trillions of 1995 USD. PTA refers to agreements with the United States, except in Column 5, where it refers to agreements with China. Standard errors clustered at the country level are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.