Multilateral Determinants of Regionalism: The Effects of GATT/WTO on the Formation of Preferential Trading Arrangements

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Abstract Preferential trading arrangements (PTAs) have spread widely over the past fifty years. During the same era, multilateral openness has grown to unprecedented heights, spurred by the General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organization (WTO). If the cornerstone of the manifestly successful multilateral regime is nondiscrimination, why have its members increasingly resorted to preferential liberalization? We argue that developments at the heart of GATT/WTO encourage its members to form PTAs as devices to obtain bargaining leverage within the multilateral regime. Specifically, the growth in GATT/WTO membership, the periodic multilateral trade negotiation rounds, as well as participation and, especially, losses in formal GATT/WTO disputes, have led its members to seek entrance into PTAs. Conducting the first statistical tests on the subject, we find strong evidence in support of this argument.

What are the problems of the GATT that lead countries to turn to their neighborhood instead?

Paul Krugman (1993, 73)

During the past fifty years, the international trading system has been marked by the rapid proliferation of preferential trading arrangements (PTAs). During the same era, multilateral openness has grown to unprecedented heights, spurred by the General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organization (WTO). That these developments have occurred in tandem is somewhat surprising. Whereas the norm of nondiscrimination in trade is the corner-

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stone of GATT/WTO, PTAs vest each member with preferential access to the other participants' markets. Equally surprising is that most preferential groupings are composed of GATT/WTO members. It is not clear why states form preferential economic blocs when they belong to a successful multilateral regime. How the spread of PTAs will affect the GATT/WTO system has been widely studied and fiercely debated.[1] Remarkably little research, however, has addressed how, if at all, the multilateral regime has conditioned the spread of PTAs.

We argue that GATT/WTO has played a large role in stimulating the formation of PTAs. A central reason why states enter PTAs is to increase their bargaining power. Preferential arrangements serve this purpose by furnishing states with insurance against the emergence of conditions within GATT/WTO that could threaten their economic interests, as well as by giving states a greater voice in multilateral trade talks and increasing their market power. Developments within the multilateral regime can create incentives for states to enhance their bargaining power, thereby triggering the establishment of preferential groupings. These developments include the growth of GATT/WTO membership, which has reduced each participant's leverage over the pace and path of multilateral liberalization. Such growth has also heightened collective action problems within the regime, making it progressively more difficult to conclude new multilateral agreements, monitor members' behavior, and enforce the regime's rules. Forming a PTA composed of a small group of members with similar economic interests can help states insure against the adverse consequences stemming from these problems.

In addition, the central vehicles used to promote an open global trading system—the periodic multilateral trade negotiations (MTNs) sponsored by GATT/WTO—can prompt members to enter PTAs as a means of guaranteeing they will not be left behind if the MTN stalls and of boosting their bargaining position in the multilateral talks. Therefore, states have reasons to establish a PTA during multilateral negotiating rounds. Trade disputes among GATT/WTO members are also likely to influence whether and when states accede to a preferential arrangement. A country embroiled in a GATT/WTO dispute may seek PTAs with third parties in the hopes of improving its leverage in the conflict. Likewise, losing a GATT/WTO dispute can impel a state to form preferential arrangements with third parties to obtain countervailing market access, insurance against future GATT/WTO enforcement failures, or additional bargaining leverage.

To test these arguments, we conduct one of the first systematic analyses of PTA formation within GATT/WTO. The evidence strongly supports our claims. Countries are more likely to form a PTA when (1) GATT/WTO membership rises, (2) a multilateral negotiating round is taking place, and (3) they have recently participated in a GATT/WTO dispute, especially when (4) they obtained an unsatisfactory outcome in the dispute. More generally, our results indicate that while

1. See Bhagwati 1993; Bhagwati and Panagariya 1996; Krugman 1993; Lawrence 1996; Mansfield and Milner 1999; Oye 1992; Pomfret 1997; and WTO 1995a.

GATT/WTO has made considerable headway in liberalizing foreign trade, it has also had various unintended consequences. Particularly important is that developments and institutional features associated with the growth of multilateral liberalization—such as rising GATT/WTO membership, MTNs, and active dispute settlement—create incentives for states to seek bilateral commercial arrangements in hopes of obtaining the greatest possible benefits from the multilateral regime.

Discrimination in a 'Nondiscriminatory' System

The central feature of all PTAs is the special market access that each member grants the other participants. Members set lower trade barriers on goods produced within the preferential grouping than on those produced elsewhere. These institutions—which include agreements that partially liberalize commerce, free trade areas (FTAs), customs unions, and common markets—have dotted the international landscape for centuries, but they have become increasingly pervasive in the past fifty years. Dozens have formed since the conclusion of World War II, and the concentration of trade flows has risen substantially within many PTAs, leading to widespread agreement that these groupings have become key elements of the international political economy.[2]

Because PTAs are generally made up of countries located in the same geographical region, the spread of these arrangements has led many observers to conclude that commercial regionalism is on the rise. As shown in Figure 1, two distinct waves of regionalism took place during the second half of the twentieth century.[3] The first occurred from the late 1950s through the 1970s; the second occurred in the 1990s.

Most PTAs formed since World War II have been composed of parties to GATT and the WTO; and, at present, virtually every WTO member belongs to some type of preferential arrangement.[4] From its inception, GATT attempted to regulate these arrangements.[5] Article XXIV of the 1947 General Agreement on Tariffs and Trade—GATT's founding document—stipulates that member-states are permitted to form a PTA only if it eliminates barriers to "substantially all the trade" among its mem-

2. Serra et al. 1997, 8.

3. See Bhagwati 1993; and Mansfield and Milner 1999.

4. WTO 1995a. In this article, we are only concerned with "reciprocal" PTAs. Nonreciprocal agreements, such as the Generalized System of Preferences, are ones in which advanced industrial states unilaterally grant preferential market access to developing countries without requiring any trade concessions in return. The consequences for the trading regime are profoundly different than when preferences are reciprocal. Özden and Reinhardt 2003. While virtually every party to the WTO belongs to some PTA, only about half of them belong to a reciprocal PTA, as shown in Figure 2.

5. Provisions for forming PTAs were made at the time of GATT's establishment because it was apparent that this body would be hard pressed to forbid states from doing so. In addition, some decision makers seemed to believe that Article XXIV's requirement that PTAs remove all trade barriers among members would complement GATT initiatives to promote multilateral openness. Bhagwati 1993, 35–36.

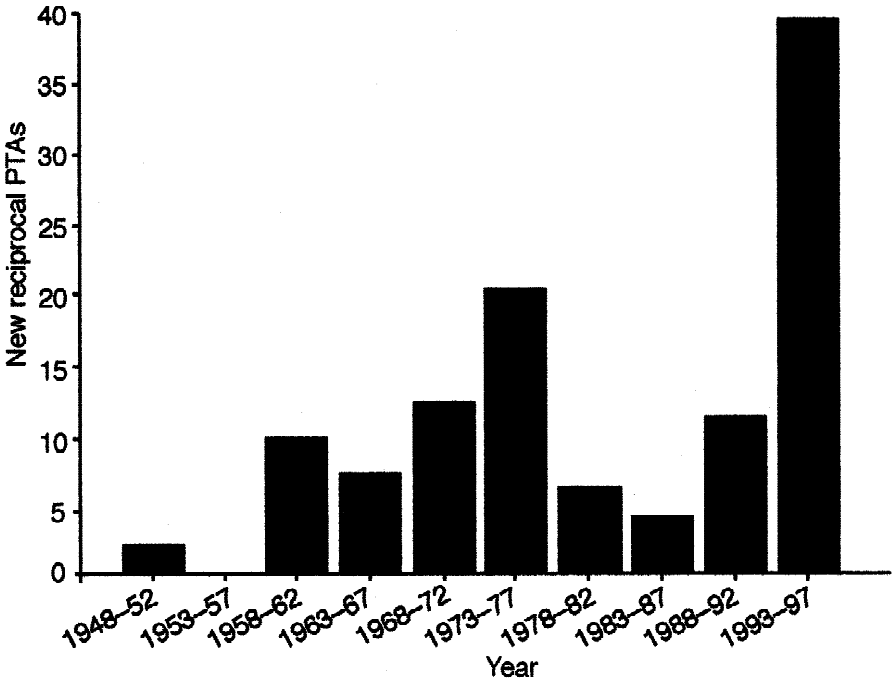

FIGURE 1. *Number of new reciprocal PTAs notified to GATT/WTO, 1948–98*

bers and does not "on the whole" increase protectionism against nonmembers.[6] Further, the Enabling Clause, which was adopted by GATT in 1979, permits developing countries to furnish preferences to one another through the creation of PTAs that do not adhere to Article XXIV.[7]

These efforts to regulate the formation of PTAs, however, have met with little success. As Jagdish Bhagwati points out, with respect to such arrangements, the multilateral regime "is so full of holes in its discipline that almost anything goes."[8] Members have been required to notify new preferential groupings to GATT working parties (before 1995) and to the WTO's Committee on Regional Trade Agreements (since 1995). These bodies—which assess the degree of compliance by PTAs with GATT/WTO rules—have failed to reach judgment on all but one of the 118 PTAs submitted for review, mostly because of differences among members about

6. See Bhagwati 1993; and WTO 1995b, 791.
7. WTO 1995a, 18–19.
8. Bhagwati 1993, 44.

what constitutes compliance.[9] As a WTO staff member observes, "history has proved this to be one of the most unsatisfactory of all GATT procedures."[10] Consequently, a former GATT Deputy Director General concluded, "Of all the GATT articles, this [Article XXIV] is one of the most abused. [New PTA members] have little fear that they will be embarrassed by some GATT body finding them in violation of their international obligations and commitments and recommending that they abandon or alter what they are about to do."[11]

In fact, GATT/WTO members joining a PTA routinely violate Article XXIV. Trade barriers within preferential arrangements are almost never completely eliminated and members frequently raise trade barriers on nonmembers' products. Germany's average tariff on third parties, for example, nearly doubled after its accession to the European Economic Community in 1958.[12] To align with the European Union's (EU) textile and apparel import regime, Turkey increased its quantitative restrictions against outside states after signing an FTA with the EU in 1995.[13] Similarly, Mexico, Israel, and the members of the *Mercado Común del Cono Sur* (Mercosur) increased their external trade barriers after joining PTAs.[14] Even preferential groupings whose members have not raised their external trade barriers often inflict some damage on third parties, if for no other reason than because the preferential access granted to members' products degrades the competitiveness of nonmembers' products within the PTA.[15]

To be clear, we are not claiming that PTAs generally have been economically harmful. Although the available evidence indicates that some PTAs—especially those composed of developing countries—have had adverse economic consequences, various studies conclude that other arrangements—particularly those formed in recent years—have promoted economic welfare.[16] Regardless, the welfare implications of PTAs do not directly bear on the issues addressed here.

Nonetheless, the fact that GATT/WTO has been unable to prevent PTAs from enacting policies that place third parties at a competitive disadvantage in international markets suggests that, contrary to the view of some observers, GATT/WTO has not "made the world safe for regionalism."[17] Rather, we argue that

9. See Crawford and Laird 2001; Sampson 1996, 90; and WTO 1995a, 63, and 1999a.
10. Sampson 1996, 90.
11. WTO 1995a, 63.
12. Ibid., 47.
13. Hudec and Southwick 1999, 72–74.
14. Panagariya 2000, 317.
15. See Frankel 1997, 112–13; Freund and McLaren 1999; Sapir 2001; and Winters and Chang 2000.
16. See Bhagwati 1993; Bhagwati and Panagariya 1996; Frankel 1997; Panagariya 2000; and Pomfret 1997. Central to assessing the global welfare implications of a PTA is whether it creates more trade among members than it diverts from efficient producers located outside the arrangement. Viner 1950. However, it should be noted that in addition to this factor, PTAs affect members' welfare by influencing foreign direct investment, the governance of international economic relations, and other issues. See Lawrence 1996; and Yarbrough and Yarbrough 1992.
17. *New York Times*, 19 December 1993, D4.

states form PTAs to ensure the greatest possible gains from the multilateral regime itself.

How the Multilateral Trade Regime Induces PTA Formation

Much research concludes that states form PTAs to obtain the economic gains stemming from preferential access to members' markets (although it is worth reiterating that whether states actually benefit from such arrangements remains the subject of substantial controversy). A growing body of literature, however, focuses on the incentives for states to establish PTAs as a means of increasing their bargaining power within the multilateral regime.[18] We focus on two ways that states entering preferential groupings enhance such power.

First, establishing a preferential arrangement can strengthen a state's bargaining position vis-à-vis nonmembers by furnishing it with insurance against developments within the multilateral regime that threaten its interests. Developments such as the failure to reach agreement in multilateral trade talks become less costly because the state has already secured open access to its PTA partners' markets. An Australian government official illustrated this point nicely. Speaking about two proposed FTAs, he remarked that "Australia's clout in the WTO talks depends on holding the line in our bilateral trade negotiations with Japan [and] the U.S. . . ."[19]

Safeguarding access to crucial overseas markets by forming a PTA is particularly useful if the enforcement mechanisms in the multilateral trade regime, designed to minimize discrimination and new protectionism, prove weak.[20] Under these conditions, a preferential arrangement furnishes members with insurance against the prospect of their key trade partners unilaterally raising trade barriers in the future. Even if GATT/WTO enforcement mechanisms are strong, however, halting progress in achieving multilateral liberalization can stimulate fears of losing competitiveness in international markets, especially on the part of smaller states. For instance, at a time when the Uruguay Round had stalled and was threatening to end in failure, an Inter-American Development Bank official declared, "The Caribbean is in danger of becoming a backwater. Small countries will be wiped out unless they integrate."[21] Referring to the unsuccessful efforts to jumpstart multilateral liberalization at the WTO's 1999 Seattle Ministerial meeting and China's looming accession to the WTO, Singapore's Foreign Minister expressed concerns

18. See, for example, Bhagwati 1993; Bhagwati and Panagariya 1996; Fernández and Portes 1998; Krueger 1999; Krugman 1993; Ludema 1996; Mansfield 1998; Oye 1992; Perroni and Whalley 2000; and Whalley 1998.
19. *Australian*, 29 April 2002, 4.
20. Bagwell and Staiger 2001, 321.
21. *Journal of Commerce*, 3 September 1991, 5A.

that Southeast Asia was "being left behind economically while North Asian countries raced ahead."[22]

By insuring states against the loss of competitiveness in international markets and any future disruption in trade that developments within the multilateral regime could precipitate, PTAs promote the bargaining power of their members. The claim that preferential arrangements vest states with insurance against shocks to the international trading system has gained increasing currency in recent years.[23] To date, however, no effort has been made to analyze how events within GATT/WTO might lead member-states to seek the insurance that PTAs provide. This gap in the literature is surprising because it is widely acknowledged that even the United States has considered using PTAs to help offset the effects of any failures at the multilateral level.[24] In 1993, for example, U.S. Trade Representative Mickey Kantor explicitly argued that trade liberalization within the Asia-Pacific Economic Cooperation (APEC) and the proposed Free Trade Agreement of the Americas (FTAA) would be viable means to expand U.S. market access in the event that the Uruguay Round faltered.[25]

Second, PTAs may also boost bargaining power by giving states a greater voice in international trade forums and enhancing their market power. Many developing countries have considerable difficulty maintaining sufficient expertise on the multitude of covered issues and policies to participate effectively in multilateral trade negotiations. In fact, many of them have no delegation at the WTO whatsoever.[26] To help resolve these problems, various PTAs pool members' resources to improve how they research, articulate, and represent their common interests in trade talks with nonmembers. For example, observers agree that a primary goal of the Caribbean Community and Common Market (CARICOM) was to "strengthen the region's external position through the coordination of member states' [trade] policies."[27] Indeed, CARICOM has sometimes negotiated as a group at the WTO.[28] Likewise, Prime Minister Said Musa of Belize justified the proposed Central American-Caribbean FTA by saying, "we need to establish a common strategy so that we can obtain special treatment in international trade negotiations."[29] Even larger countries have incentives to use PTAs to coordinate on the best ways to pursue their mutual interests vis-à-vis third parties. For instance, Malaysian Prime Minister Mahathir Mohamad's 2002 proposal for an East Asian Economic Group,

22. *Financial Times*, 25 July 2000, 10.
23. See Fernández and Portes 1998; Mansfield 1998; Perroni and Whalley 2000; Whalley 1998; and Yarbrough and Yarbrough 1992.
24. Whalley 1998.
25. *Irish Times*, 29 October 1993, 14.
26. See Michalopoulos 1999; and Reinhardt 2002.
27. IADB 2000, 31; see also Andriamananjara and Schiff 2001.
28. WTO 2001.
29. James Canute, "Caribbean and Central America Press for Co-Operation," *Financial Times*. Available at ⟨www.ft.com⟩. Accessed 12 February 2002.

a revival of a Uruguay Round-era plan, was intended to help its potential members "be more effective in protecting their collective interests."[30]

Further, PTAs may increase leverage by accumulating the market power of individual members, giving them a greater ability to influence their terms of trade and to negotiate favorable settlements with outsiders.[31] On this score, Pascal Lamy—the EU's Commissioner for External Trade—conceded that "consolidating Mercosur will give Brazil and its partners . . . more political weight in international negotiations."[32] Anticipating the formation of Mercosur, a Brazilian official similarly remarked, "Dealing directly with the U.S. on international trade issues is like getting into a cage with a tiger. Only if we have others in with us do we stand a better chance of getting some satisfactory results."[33]

The ability of a PTA to heighten the market power of members is especially pronounced for states in a customs union—such as the European Community (EC) and Mercosur—because these institutions erect a common external tariff (CET) and thus bargain over tariff levels with third parties as a unit.[34] However, states need not form a customs union to enhance their negotiating position. It is widely argued that states have tried to influence the outcome of multilateral negotiations by threatening to form or actually establishing various types of PTAs.[35] Further, regardless of whether a PTA imposes a CET, its members accrue bargaining power insofar as the arrangement improves their reversion point in negotiations with third parties and promotes collective action among them. In any case, Rodney Ludema has identified a fairly broad set of conditions under which the external bargaining power of customs unions and other PTAs is quite similar.[36] Hence, we focus on PTAs as a group, rather than distinguishing among different types of them, in the following analysis.

Central to our argument is that developments within GATT/WTO have influenced when member-states have sought the bargaining power offered by PTAs. As we explain below, the existence of a GATT/WTO multilateral negotiating round, fluctuations in its membership, and its mechanisms to settle commercial disputes between members are particularly important in this regard.

Multilateral Trade Negotiations

Since its creation, GATT/WTO has sponsored eight rounds of MTNs: Geneva (1947), Annecy (1949), Torquay (1950–51), Geneva (1955–56), Dillon (1961–62),

30. *Business Times (Malaysia)*, 23 May 2002, 2.
31. See Fernández and Portes 1998, 201; Krugman 1993, 73; Lawrence 1996, 37; and Oye 1992.
32. European Commission, Trade DG, Information Unit, 10 July 2001.
33. *Financial Times*, 2 July 1985, 5. See also Lawrence 1996, 37.
34. However, FTAs routinely level asymmetries in external tariffs using rules of origin. WTO 1995a, 48–49.
35. See Fernández and Portes 1998; Krueger 1999; and Whalley 1998.
36. Ludema 1996.

Kennedy (1963–67), Tokyo (1973–79), and Uruguay (1986–94), plus the Doha Development Agenda, launched in November 2001. Participants in MTNs that enter a PTA may be able to strengthen their bargaining position in these negotiations.[37] Heightened market power enhances the ability of members to use protectionist instruments to improve their terms of trade, thereby dampening their incentive to liberalize trade and bolstering their bargaining position in multilateral negotiations.[38] Further, by vesting each member with preferential access to the markets of other participants, PTAs can help firms in member-states to achieve economies of scale. States entering a preferential grouping thus face a reduced need for multilateral liberalization to generate such economies, bolstering their leverage in multilateral negotiations.[39] In this vein, it is noteworthy that the definitive accounting shows that countries such as Bolivia, India, Australia, South Africa, and Ecuador were granted significantly fewer Uruguay Round market access concessions than, respectively, Uruguay, Brazil, Austria, Turkey, and Honduras.[40] At the time, the latter five countries were members of more preferential arrangements than the former five, suggesting that participation in these arrangements did indeed increase their bargaining power in the Uruguay Round. If PTAs boost bargaining power in MTNs, as this illustrative evidence suggests, then MTNs should provide an impetus for states to enter PTAs.

Moreover, by forming a PTA with key trade partners during a multilateral negotiating round, parties to GATT/WTO can obtain insurance against the round stalling or failing to produce results in the specific areas they deem most important.[41] A deadlocked MTN would place pressure on the multilateral regime and could threaten the stability of commercial relations between important trade partners. Such partners can minimize the severity of this threat by entering a PTA, because the grouping liberalizes commerce among members and limits their ability to raise trade barriers in the future. In addition, entering a PTA helps a state attract foreign investment: overseas firms are often drawn to the expanded market access offered by preferential groupings, especially when the outcome of multilateral talks is uncertain or delayed.

Although each of the eight MTNs sponsored by GATT/WTO yielded accords that liberalized global trade, nearly every MTN has been marked by intense disagreement while being fashioned. Ministers and observers often asserted that the round was in a state of crisis and teetering on the brink of failure until the final text was inked. The desire for insurance and bargaining power more generally is thus paramount throughout an MTN. We therefore hypothesize that PTAs are more likely to form during an MTN than when no such negotiation is underway.

37. See Bhagwati and Panagariya 1996; and Whalley 1998.
38. See Mansfield 1998, 527; and Oye 1992.
39. See Bhagwati 1993; and Fernández and Portes 1998, 201–2.
40. Finger, Ingco, and Reincke 1996, 201.
41. See Fernández and Portes 1998, 212; Krugman 1993, 74; Mansfield 1998, 535–36; Perroni and Whalley 2000; Whalley 1998; and WTO 1995a, 52.

Anecdotal evidence is consistent with this hypothesis. The WTO, for example, officially attributed the wave of regionalism during the past decade to events in the Uruguay Round, such as the failed Brussels Ministerial meeting in December 1990.[42] In the same vein, economic ministers of the Association of Southeast Asian Nations (ASEAN) launched an FTA in 1993, an initiative that was widely viewed as "a sign [of] . . . concern about the inability to achieve a successful conclusion to the Uruguay Round."[43] Equally, many observers point to the stalled multilateral negotiations as a critical catalyst for the U.S.-Canada FTA, arguing that the United States conceived of this arrangement as "a prod to recalcitrant nations to join in the GATT effort to make sure they weren't cut out of the action."[44] More recently, the United States has proposed an extensive series of bilateral trade accords, with the explicit purpose of leveraging more concessions from nonmembers during the Doha round of WTO talks.[45]

Growing GATT/WTO Membership

Membership in GATT/WTO has grown more than sixfold since its inception, from twenty-two states in 1948 to 137 in 2000.[46] It is widely recognized that as the multilateral system adds members, each member's leverage declines.[47] Especially for smaller states, which have relatively little bargaining power to begin with, there are clear incentives to respond to a decrease in leverage by banding together to enhance their influence through the formation of a PTA. Consistent with this hypothesis, a number of formal models have shown that rising GATT/WTO membership decreases the leverage of each participant and stimulates the establishment of preferential groupings.[48] To date, however, this issue has not received much systematic empirical scrutiny.

There are a number of related reasons to expect growth in the size of GATT/WTO to precipitate PTA formation. As the number of parties to the multilateral regime has increased, so have the severity of collective action problems and the heterogeneity of preferences within the institution.[49] An expanded membership reduces each participant's ability to monitor the trade practices of its counterparts. States also face rising incentives to cheat: because the actions of any single mem-

42. See Dryden 1995, 370; and WTO 1995a, 54.
43. *Far Eastern Economic Review*, 5 November 1992, 50.
44. Dryden 1995, 340; see also Preeg 1995, 80.
45. For example, upon the completion of the U.S.-Singapore FTA negotiations, U.S. Trade Representative Robert Zoellick declared, "I firmly believe that a process of . . . competitive liberalization will enhance our ability to get Doha done." See *Washington Post*, 20 November 2002, E3; and *Financial Times*, 1 November 2002, 14.
46. Chile signed the 1947 GATT agreement but did not accede formally until 1949. WTO 1995b, 1136.
47. See, for example, Koremenos, Lipson, and Snidal 2001, 791–92; and McCalman 2002, 154.
48. See Freund 2000, 373–74; and McCalman 2002, 154.
49. See Fernández and Portes 1998, 205; and Krugman 1993, 74.

ber are likely to have relatively little bearing on the performance of the multilateral regime, cheating is less likely to weaken the GATT system.[50]

Further, increased membership tends to introduce greater heterogeneity of preferences, as well as trade and business practices, within GATT/WTO. For example, when there are more negotiating partners, trade liberalization tends to influence more goods and adversely affect a greater number of potent interest groups.[51] Adding developing countries to the multilateral regime creates further complications, because the trade barriers these states most want removed (for example, those on textiles and agriculture) have long been the sacred cows of protectionist interests in the advanced industrial states. The accession of developing states to GATT/WTO also has intensified North-South divisions on intellectual property and labor and environmental standards. The WTO Director General admitted after the failed Seattle Ministerial meeting in 1999 that "the reason we had problems was the diversity of our members."[52] Even the addition of a single member can hamper efforts to promote multilateral liberalization. For example, the EU Trade Commissioner recently stated that "a round with China in is going to be much more difficult than a round without China in."[53] Because of China's WTO accession, Prime Minister Junichiro Koizumi has proposed a dramatic shift away from Japan's historical aversion to regionalism, starting with a PTA involving Singapore.[54]

Faced with heightened difficulty arriving at any overarching agreement on economic matters as the number of members grows,[55] parties to GATT/WTO may find it advantageous to form smaller, preferential arrangements composed of states with common interests on trade policy.[56] Such arrangements provide insurance against future disruptions of trade that might occur if multilateral negotiations buckle under the weight of a large number of participants with disparate commercial preferences, thereby enhancing the members' bargaining power within the regime.

GATT/WTO Disputes

While MTNs and membership growth are two of the most obvious achievements of the multilateral regime, the daily business—indeed, the "jewel"[57] or

50. Krugman 1993, 74.
51. Ethier 1999, 136.
52. *New Straits Times (Malaysia)*, 30 January 2000, 19.
53. *Financial Times*, 25 May 2000, 14.
54. See *International Trade Reporter*, 6 September 2001, 1389; and *Australian Financial Review*, 24 April 2002, 4.
55. The first MTN, in 1947, took six months to complete, whereas the last one took nine years.
56. See Ethier 1999; and Westhoff, Yarbrough, and Yarbrough 1994. In the same vein, Downs, Rocke, and Barsoom argue that PTAs have an easier time achieving deep integration than GATT/WTO because they generally have a more homogeneous set of members. Downs, Rocke, and Barsoom 1998.
57. Hudec 1993, 9.

"backbone"[58]—of the GATT/WTO system is settling commercial disputes among its members.[59] Formal GATT/WTO disputes occur with striking frequency and are another factor likely to affect the establishment of PTAs.[60] In a dispute, one state—the "complainant"—notifies GATT of its objections to trade practices of a counterpart—the "defendant." The disputants consult bilaterally and may request an independent legal judgment by a GATT/WTO-appointed panel of experts. Enforcement, however, is left to the complainant alone. Accordingly, a disputant is more likely to prevail—that is, to induce concessions from a defendant or withstand a complainant's retaliatory threats, as appropriate—if it possesses significant market power.[61] Because PTAs possess more market power than any constituent member, states may enhance their leverage in trade disputes by entering a preferential grouping.[62]

Of course, the stakes involved in any single dispute—while often surprisingly large—are small compared to those involved in forming a PTA.[63] It is therefore unlikely that, by itself, participating in a single GATT/WTO dispute would be sufficient to prompt a state to seek a preferential arrangement. Involvement in a dispute, however, dramatically raises a state's chances of participating in other future disputes.[64] Consequently, the costs of forming a PTA are at least partially offset by what are likely to be a long stream of improved dispute outcomes.

Further, many disputes concern policies, such as export subsidies, aimed at increasing competitiveness in a third party's market. An unsatisfied disputant may seek a PTA with that third party as a way of bypassing the dispute process. For instance, one of Argentina's primary motives for entering and deepening its commitment to Mercosur was to secure preferential access to the Brazilian wheat market. Brazil was Argentina's leading export market for wheat, and its competitiveness in that market was threatened by Canadian and U.S. export subsidy programs, which Argentina had challenged ineffectually in a GATT dispute.[65] In some disputes, third parties also face the possibility that disputants will arrive at a settlement that discriminates against them, thereby increasing the incentives for third parties to form a PTA with either disputant (separately) to ensure that their market access is not jeopardized.[66] Thus, we hypothesize that if either of a pair of countries has recently participated in a GATT/WTO dispute with a third party, the two will be more likely to form a PTA with each other.[67]

58. Moore 2000.
59. Reinhardt forthcoming, chap. 1.
60. From 1948 through 1998 there were over 600 GATT/WTO trade disputes.
61. See Hudec 1993, 318, 324, 326; and Mavroidis 2000.
62. See Bagwell and Staiger 2001; and WTO 1995a, 53.
63. On the size of the stakes involved in GATT/WTO disputes, see Reinhardt forthcoming.
64. Busch and Reinhardt 2002.
65. See *Los Angeles Times*, 9 December 1994, D3; and GATT 1994, 24.
66. Busch and Reinhardt 2002.
67. A good part of the U.S. emerging interest in regionalism in the 1980s derived from its frequent GATT disputes (often incompletely resolved) with the EU. Indeed, in February 1988, Treasury Secretary James Baker publicly chastised the EC's recalcitrance on several outstanding disputes and threat-

The incentives to form a PTA are greater still if a state ends up losing its dispute as well. Whether a state "wins" or "loses" a dispute is not defined by any multilateral legal judgment, but rather by practical policy consequences. A complainant loses for our purposes if it fails to induce the target to change the disputed policies fully; a defendant loses if it fails to maintain the status quo (protectionist) policy in the face of foreign pressure. Losing a dispute constitutes a proven bargaining failure. For a complainant, a loss is firsthand evidence that GATT's enforcement system is weak. The lesson may be that market access for its exports is best insured through bilateral rather than multilateral means. For a defendant, a loss is proof of its weakness, which is particularly galling when other states are sometimes able to resist foreign challenges against their protectionist practices. The lesson may be that the reciprocity underpinning the regime is only enforced at the convenience of more powerful members. Hence, we hypothesize that a state that has lost a recent GATT/WTO dispute will be especially likely to enter a preferential arrangement with a third party, to insure itself against future defeats and to bolster its position henceforth in such conflicts.

Research Design

Despite the widespread interest expressed in commercial regionalism, little systematic empirical research has analyzed the influences on PTA formation, let alone the role of GATT/WTO.[68] To address the hypotheses advanced earlier, we examine each pair of GATT/WTO members, *i* and *j*, that do not already share a PTA in every year, *t*, from GATT's creation in 1948 until 1998.[69] Our dependent variable, PTA, is the log of the odds that *i* and *j* form a PTA entering into force in *t*, given that the pair did not belong to the same PTA in year $t - 1$. We observe 1 if this occurs and 0 otherwise. We consider all PTAs (that is, partially-liberalizing agreements, FTAs, customs unions, and common markets) formally notified to GATT/WTO, as long as they are "reciprocal," meaning that each party grants the others preferential market access.[70] The annual number of GATT/WTO members entering reciprocal PTAs is shown in Figure 2. Out of all pairs of GATT/WTO members not already in the same PTA, a little more than 6 percent joined together in new PTAs at some point from 1948 through 1998.

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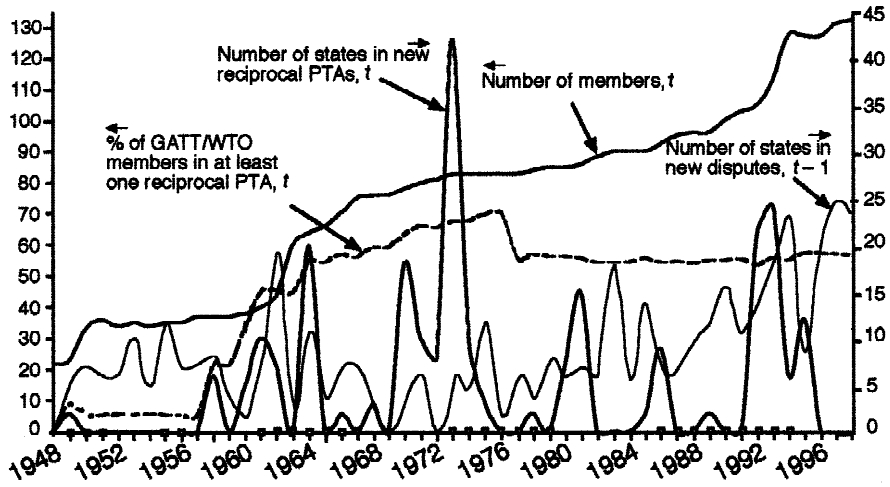
ened that the United States was considering FTA talks with Japan, South Korea, and Taiwan, which took shape later as APEC. See Hudec 1993; and Preeg 1995, 80.

68. For some exceptions, see Mansfield 1998; and Mansfield, Milner, and Rosendorff 2002.

69. A state is included in the sample during year *t* if it was a member of GATT/WTO on any day in that year. The EC/EU is the only PTA that itself is a member of GATT/WTO; we do not include it but do count its member states. See Jackson 1969, 898–900; GATT 1990, 139; and WTO 1998.

70. See Smith 2000, 151; and WTO 1995a, 77–91 and 1999b. Note that PTA "upgrades" (for example, Sweden, Finland, and Austria, were in an FTA with the EU and then acceded to the EU proper in 1995) are not included in the following analysis, because the participants were already PTA members in $t - 1$.



Note: Small arrows point to relevant vertical axis. Squares on horizontal axis show years in which an MTN was underway. "Number of states in new disputes" counts EU as one state.

FIGURE 2. *Trends in GATT/WTO membership, disputes, and reciprocal PTAs, 1948–98*

Explanatory Variables

To test our arguments, we focus on four explanatory variables. First, NUMBER OF MEMBERS is the number of contracting parties to GATT/WTO in $t - 1$.[71] Second, MTN ROUND UNDERWAY equals 1 if a formal multilateral trade negotiation occurred in t, 0 otherwise. Third, NEW DISPUTE WITH THIRD PARTY equals 1 if either i or j participated as a complainant or defendant in a GATT/WTO dispute with a third party in $t - 1$ (not counting third parties in PTAs with the other state in the pair), 0 otherwise.[72] Based on the arguments advanced earlier, we expect to find positive associations between PTA formation, on the one hand, and NUMBER OF MEMBERS, MTN ROUND UNDERWAY, and NEW DISPUTE WITH THIRD PARTY, on the other. Trends in these variables are shown in Figure 2. For the full population of GATT/WTO member-pairs, MTN ROUND UNDERWAY and NEW DISPUTE WITH THIRD PARTY equal 1 in 53 percent and 31 percent of the observations, respectively.

The final explanatory variable, DISPUTE LOSS WITH THIRD PARTY, indicates the performance of i and j in GATT/WTO disputes with third parties. It draws on an

71. The EC itself is not included in this count.

72. We include all complaints formally filed, not just those in which GATT/WTO adjudication panels were established or issued rulings. Disputes lodged against or by the EC/EU are assigned to every one of its contemporary members. The list of disputes is from Busch and Reinhardt 2002, which draws on Hudec 1993; and WTO 1995b, 620, 623–28, 772–87, and 1999c.

existing measure of the extent of concessions—none, partial, or full—made by a defendant to the initial demands of the complainant in a GATT/WTO dispute, regardless of whether a ruling was ultimately issued.[73] We define a participant as "losing" if it fails to meet its primary objectives in the conflict. The complainant loses if it fails to induce full concessions from the defendant; the defendant loses if it makes any concessions. DISPUTE LOSS WITH THIRD PARTY equals 1 if either *i* or *j* lost a dispute with a third party (again, excluding disputes where the third party belongs to a PTA with the other state in the pair) that started in year $t - 3$, 0 otherwise. We lag the effects of this variable by three years because the average length of GATT disputes is roughly two to three years. This variable equals 1 in 20 percent of the population of GATT/WTO dyad-years. We anticipate a positive relationship between DISPUTE LOSS WITH THIRD PARTY and PTA formation.

Control Variables

To adequately assess the effects of these explanatory variables, it is important to control for various other factors that previous studies have identified as likely influences on PTA formation. First, open trade generates efficiency gains that can be used to enhance states' political-military capability. Preferential trading arrangements—all of which liberalize commerce among participants—thereby generate a security externality. States can help internalize this externality by trading more freely with political-military allies than with neutral countries or adversaries.[74] As such, PTAs are more likely to form between allies than between other states.[75] Hence, we analyze ALLIANCE, which equals 1 if *i* and *j* maintained a formal military alliance in $t - 1$, 0 otherwise.[76]

Second, it is widely recognized that PTAs tend to form among states located in close geographical proximity to one another. A state's primary trade partners tend to be neighbors because of the reduction in transportation and transaction costs stemming from close proximity.[77] We therefore assess the effects of DISTANCE, which is the mileage (in thousands) between the capital cities of *i* and *j*, set to 0 if the pair is contiguous.[78] Third, recent research indicates that the likelihood of *i* and *j* forming a PTA rises as each country becomes more democratic.[79] We thus include DEMOCRACY, a 21-point measure of each state's regime type in $t - 1$ that ranges from -10 for highly autocratic countries to 10 for highly democratic ones.[80]

Fourth, as a state's domestic market grows larger, it typically depends less on foreign trade and has less need to increase its market power for bargaining pur-

73. See Busch and Reinhardt 2002 and 2003; Hudec 1993; and Reinhardt 2001 and forthcoming.
74. See Gowa 1994; and Gowa and Mansfield 1993.
75. See Mansfield 1993; and Mansfield and Milner 1999.
76. Data on alliances are taken from Correlates of War Project 1993; and Lai and Reiter 2000.
77. See Deardorff 1998; and Frankel 1997, chap. 3.
78. Data on distance are obtained from Bennett and Stam 1999.
79. Mansfield, Milner, and Rosendorff 2002.
80. Data for this variable are found in Gurr and Jaggers 1999.

poses. Further, the expanded market access furnished by PTAs can help firms in member-states to realize economies of scale, but the corresponding gains tend to be greater for firms located in small countries. Hence, we expect the probability of PTA formation to be greater for economically small states than for their larger counterparts. To address this hypothesis, we analyze the gross domestic product (GDP) (in trillions of constant 1995 international dollars, expressed in terms of purchasing power parity) of each state in $t - 1$. Fifth, because many observers have noted that rich states tend to form PTAs more frequently than poor ones, we control for both states' PER CAPITA GDP (in thousands of constant 1995 international dollars, expressed in terms of purchasing power parity) in year $t - 1$. Sixth, it has been argued that downturns in the business cycle can prompt states to enter PTAs.[81] Because PTAs discriminate against third parties, joining a preferential grouping is one way that governments can respond to the domestic pressures for protection that often accompany recessions without contravening GATT/WTO rules. Joining a PTA also attends to a country's export-oriented firms, which have particular reason to press for preferential access to foreign markets in the face of depressed demand for their products. We therefore include GROWTH, the annual percentage change in each state's real GDP for year $t - 1$.[82]

We have argued that strategic interaction guides the formation of PTAs, as states seek to augment their bargaining position within GATT/WTO. Moreover, we have argued that developments within GATT/WTO influence the nature of strategic interaction across dyads and across time, thereby affecting which states form PTAs and when states do so. However, it is obvious that other factors also influence strategic interaction in the international trading system. These factors, too, are likely to affect the establishment of preferential groupings, and it is therefore important to account for them in our analysis.

To this end, we include TRADE, which is the sum of *i*'s imports from and exports to *j* (in trillions of constant 1995 U.S. dollars) in $t - 1$.[83] Because preferential arrangements provide states with insurance against being locked out of the participants' markets, we expect GATT/WTO members to form PTAs with their most important trade partners. PTAs liberalize commerce among members and restrict their ability to increase trade barriers in the future, creating an incentive for those economic partners that would suffer most if commerce was disrupted to create such groupings.[84]

81. See Mansfield 1998, 526; and Mattli 1999, 81.

82. Data on GDP, per capita GDP, and growth are taken from IMF 1998b; Summers and Heston 1991; and World Bank 2001.

83. Data on bilateral trade flows are obtained from IMF 1999a. Nominal values of trade are adjusted by changes in the U.S. producer price index, which is found in United States 2000.

84. Furthermore, as neofunctionalists have long argued, international commerce promotes the development of coalitions with an interest in creating institutional mechanisms to increase economic integration and avert the breakdown of economic relations between the trade partners. Integration also increases the vulnerability of private traders to opportunistic behavior by foreign governments, which in turn gives them a motive to constrain governments' behavior using a PTA. See Mattli 1999, 23–28, 46–50; and Yarbrough and Yarbrough 1992.

Not only do we expect GATT members to establish PTAs with their most important trade partners, we also expect them to form PTAs with states that belong to the same preferential groupings as these partners. Doing so further reduces the prospect of being closed out of vital foreign markets, for example, if groupings involving a state's key commercial partners—but excluding this state itself—raise trade barriers against third parties. As such, we include TRADE PARTNER PTA COVERAGE. This variable is the proportion of *i*'s top ten GATT/WTO trade partners, exclusive of *j*, which maintained a reciprocal PTA with *j* in $t - 1$.

Within GATT/WTO, preferential groupings often form in reaction to each other.[85] As an increasing number of GATT/WTO members establish PTAs, those states left uncovered by an arrangement have a growing incentive to join one. Such states have reason to fear that they will be placed at a competitive disadvantage vis-à-vis participants in PTAs, generating pressure on them to enter a trade bloc. Furthermore, the perception that PTAs are spreading because participants are reaping economic benefits can prompt states that do not belong to a preferential grouping to join one.[86] Equally, existing PTAs can provide templates for states that are considering forming one, furnishing "institutional models" that can be duplicated or altered and thereby decreasing the costs associated with establishing such an arrangement.[87] Consequently, as PTAs proliferate, it may become easier to set up new groupings.

In addition, we mentioned earlier that PTAs generally are vested with greater bargaining power than their constituent members. As the number of states covered by a PTA grows larger, the bargaining power of states that remain uncovered by such an arrangement degrades. Thus, states that do not belong to a preferential grouping have reason to enter one as PTAs spread. We therefore include PTA DENSITY—the portion of GATT/WTO dyads that belong to a reciprocal PTA in $t - 1$, excluding those in which either *i* or *j* is a member.

We also consider the possibility that the relationship between PTA DENSITY and the likelihood of PTA formation is characterized by a saturation or ceiling effect.[88] When enough dyads belong to preferential groupings, it is likely that relatively few pairs with an interest in forming a PTA will be left uncovered by one. If so, there may be a quadratic relationship between PTA DENSITY and the likelihood of PTA formation. To address this possibility, we add PTA DENSITY^2.

Two of our four key explanatory variables concern participation in and the outcomes of *i*'s and *j*'s GATT/WTO disputes with third parties. To verify that the effects of these two variables do not stem from the bilateral dispute record between *i* and *j*, we add a dummy variable, NEW DISPUTE BETWEEN *i* AND *j*, which equals 1 if either state filed a GATT/WTO dispute against the other in year $t - 1$. Our argument does not speak to the likely impact of this variable on PTA forma-

85. See Pomfret 1997; and Serra et al. 1997.
86. See Pomfret 1997; and Yarbrough and Yarbrough 1992.
87. Yarbrough and Yarbrough 1997, 158.
88. Mansfield 1998.

tion. A record of disputes may, on the one hand, indicate intense conflicts of interest that reduce the probability of *i* and *j* forming a PTA. On the other hand, *i* and *j* may seek to avoid the costs of these confrontations by embedding a solution in a new joint PTA, much as Canada sought with the U.S.-Canada FTA to tie the hands of the United States on a series of unfair trade actions (on lumber, etc.) recently disputed under GATT. Finally, we include YEAR, which is *t*, to capture any secular trend in PTA formation between GATT/WTO members.

Statistical Models

A number of the aforementioned control variables—DEMOCRACY, GDP, PER CAPITA GDP, GROWTH, and TRADE PARTNER PTA COVERAGE—are "monadic," meaning that they measure properties of each state in a pair, not the pair itself. Thus, each of these variables should be entered in the model twice, with one variable corresponding to country *i* and a second variable corresponding to country *j*. Yet arbitrarily determining which state in a pair is *i* and which one is *j* could influence our results, so we estimate a "directed dyad" model in which each dyad-year is analyzed twice. For example, in the case of the U.S.-Canada dyad in 1990, we include one observation where the United States is *i* and Canada is *j*, and a second observation where Canada is *i* and the United States is *j*. Each monadic variable is included in this model only once, for the country listed as *i* in each particular observation. Of course, analyzing directed dyads doubles the number of observations in the sample, thereby producing standard errors that are too small. To correct this problem, we cluster the standard errors over the *un*directed dyad. As a result, this test is more conservative than one based on the 151,912 undirected dyad-years in the population. Rather than doubling the sample size, clustering the standard errors over the undirected dyad effectively reduces it by a factor of 17 (to 8,799 dyads), yielding estimated standard errors that are about four times larger than would otherwise be the case.

Nevertheless, for comparison, we also estimate a more typical undirected dyad model that includes each monadic variable twice. Which state is *i* and which one is *j* is determined by random assignment. Descriptive statistics for the variables included in the basic directed dyad and undirected dyad models—labeled models (1) and (3) and models (4) and (6), respectively—are shown in Table 1.

Because a number of independent variables are missing a considerable amount of data, these models include a little less than half the universe of the yearly dyadic observations from 1948 to 1998. To assess whether our results are sensitive to these missing data, we also estimate directed and undirected dyad models (labeled (2) and (5), respectively) without GROWTH, ALLIANCE, and TRADE, raising the sample size to about 85 percent of the population (for directed dyads). Whereas our initial analyses exclude the first and last few years of the sample due to missing data, omitting these variables allows us to analyze the entire period from 1948 to 1998.

TABLE 1. *Descriptive statistics*

	Directed dyad years Models 1 and 3				*Undirected dyad years Models 4 and 6*			
Variable	*Mean*	*SD*	*Min.*	*Max.*	*Mean*	*SD*	*Min.*	*Max.*
PTA, t	0.006	0.076	0	1	0.006	0.077	0	1
NUMBER OF MEMBERS, $t - 1$	85.255	14.823	23	105	86.195	13.406	23	105
DETRENDED # OF MEMBERS, $t - 1$	−2.104	7.070	−10.573	12.446	−2.177	7.074	−10.574	12.446
MTN ROUND UNDERWAY, t	0.652	0.476	0	1	0.656	0.475	0	1
NEW DISPUTE WITH 3RD PARTY, $t - 1$	0.381	0.486	0	1	0.394	0.489	0	1
DISPUTE LOSS WITH 3RD PARTY, $t - 3$	0.302	0.459	0	1	0.315	0.465	0	1
NEW DISPUTE BETWEEN i AND j, $t - 1$	0.016	0.124	0	1	0.017	0.131	0	1
ALLIANCE, $t - 1$	0.094	0.292	0	1	0.098	0.297	0	1
DISTANCE, t	4.866	2.701	0	12.363	4.935	2.687	0	12.363
TRADE, $t - 1$	0.0004	0.0032	0	0.1878	0.0004	0.0034	0	0.1790
PTA DENSITY, $t - 1$	0.004	0.032	−0.075	0.080	0.004	0.031	−0.075	0.080
PTA DENSITY^2, $t - 1$	0.001	0.002	0	0.006	0.001	0.002	0	0.006
DEMOCRACY i, $t - 1$	2.423	7.755	−10	10	2.236	7.782	−10	10
DEMOCRACY j, $t - 1$	—	—	—	—	2.165	7.777	−10	10
GDP i, $t - 1$	0.250	0.770	0.0001	6.440	0.251	0.782	0.0001	6.440
GDP j, $t - 1$	—	—	—	—	0.242	0.758	0.0001	6.440
PER CAPITA GDP i, $t - 1$	7.438	9.156	0.114	45.951	7.349	9.157	0.114	45.951
PER CAPITA GDP j, $t - 1$	—	—	—	—	7.267	9.173	0.114	45.951
GROWTH i, $t - 1$	3.564	4.846	−24.049	39.487	3.513	4.893	−24.049	39.487
GROWTH j, $t - 1$	—	—	—	—	3.570	4.870	−24.049	39.487
TRADE PARTNER PTA COVERAGE i, $t - 1$	0.132	0.233	0	0.9	0.140	0.238	0	0.9
TRADE PARTNER PTA COVERAGE j, $t - 1$	—	—	—	—	0.140	0.237	0	0.9
YEAR, t	1980.42	9.473	1950	1993	1980.93	8.969	1950	1993
POSTCOMMUNIST, t	0.025	0.157	0	1	0.025	0.155	0	1
FORMER COLONIAL RELATIONSHIP, t	0.029	0.169	0	1	0.032	0.177	0	1
Number of observations	149,308				65,153			

Note: Shaded rows identify the variables that are central to our argument. SD = standard deviation.

Results

Because the observed value of the dependent variable is dichotomous, we use a logit specification to estimate these models. To account for any duration dependence in the data, we include a natural cubic spline function of the number of years *i* and *j* have been without a PTA, as of *t*.[89]

As reported in Tables 2 and 3, the models fit the data well.[90] Further, the results of these analyses strongly support our argument about the impact of the multilateral regime on PTA formation. The estimates of NUMBER OF MEMBERS, MTN ROUND UNDERWAY, NEW DISPUTE WITH THIRD PARTY, and DISPUTE LOSS WITH THIRD PARTY are positive as well as both statistically (at the .001 level) and substantively significant.[91] Equally, the coefficient estimates are quite similar regardless of whether we use the directed or undirected dyad approach—see models (1) and (4)—or whether we use the larger-sample specification without ALLIANCE, GROWTH, and TRADE—see models (2) and (5).

To address the substantive effects of these factors as well as some selected control variables, Figure 3 reports the "relative risk" of states *i* and *j* forming a PTA, based on the results in model (1). For each dummy variable shown in Figure 3, this risk is the probability of establishing an arrangement when the variable equals 1 divided by the probability when it equals 0 (since the coefficient estimate of each dummy variable in the figure is positive), holding constant the remaining variables in the model. For every other variable with a positive (negative) coefficient estimate in model (1), the relative risk is the predicted probability of PTA formation when the variable is one standard deviation above its mean (at the mean) divided by this probability when the variable is evaluated at its mean (one standard deviation above the mean).

Our results clearly indicate that rising GATT/WTO membership has increased the probability of states creating a PTA. Figure 3 shows that shifting NUMBER OF MEMBERS from its sample mean by one standard deviation yields more than a forty-fold increase in the predicted probability of PTA formation, a far larger impact than any other variable considered here. In addition, during a multilateral trade negotiation, the likelihood of any two states establishing a preferential grouping increases by roughly a factor of six. If either state in the pair participated in a new GATT/WTO dispute with a third party in $t - 1$, the prospect of entering a PTA

89. Beck, Katz, and Tucker 1998, 1270–71. Wald tests of the joint significance of the terms in this spline function (which yield $p < .001$ for all models) confirm that they should be included.

90. Estimates were produced using *Stata* 7.0's *logit, robust cluster* command. Note that there is little evidence of collinearity in this analysis. The exceptions include PER CAPITA GDP with DEMOCRACY, DISTANCE with YEAR and NUMBER OF MEMBERS, and PTA DENSITY with its square, which all exhibit no more than moderate ($r < .6$) bivariate correlations. Only NUMBER OF MEMBERS and YEAR are highly correlated. Their estimates are nonetheless statistically significant.

91. Wald tests lead us to reject the null hypothesis that NUMBER OF MEMBERS, MTN ROUND UNDERWAY, NEW DISPUTE WITH THIRD PARTY, and DISPUTE LOSS WITH THIRD PARTY jointly equal zero, with $p < .001$ for all models.

TABLE 2. *Duration dependent logit models of PTA formation, directed dyads*

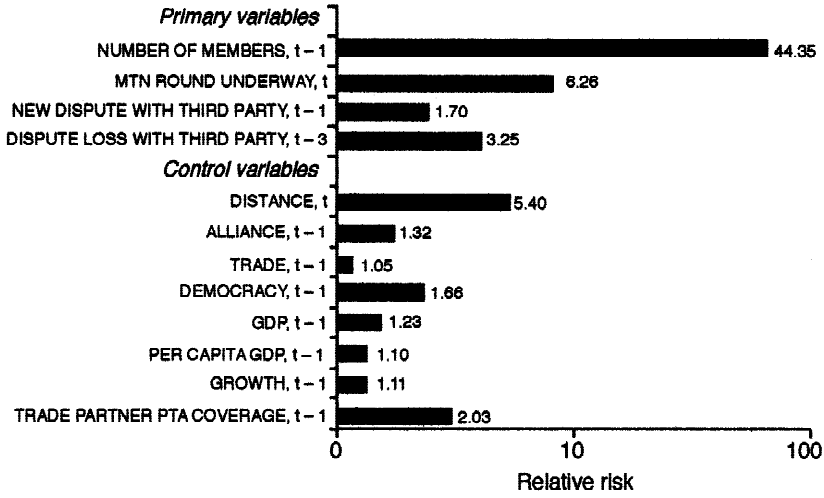
Variable	*Model 1 (1950–93)*		*Model 2 (1948–98)*		*Model 3 (1950–93)*	
Prob(PTA) = 1	*Coefficient*	*SE*	*Coefficient*	*SE*	*Coefficient*	*SE*
NUMBER OF MEMBERS, $t-1$	0.251**	0.030	0.155**	0.012	—	—
DETRENDED # OF MEMBERS, $t-1$	—	—	—	—	0.235**	0.024
MTN ROUND UNDERWAY, t	1.848**	0.154	1.900**	0.155	1.730**	0.159
NEW DISPUTE WITH 3RD PARTY, $t-1$	0.527**	0.133	0.629**	0.118	0.587**	0.133
DISPUTE LOSS WITH 3RD PARTY, $t-3$	1.183**	0.115	1.073**	0.102	1.270**	0.114
NEW DISPUTE BETWEEN i AND j, $t-1$	−0.933	0.643	−0.922	0.619	−0.809	0.640
ALLIANCE, $t-1$	0.270*	0.116	—	—	0.453**	0.117
DISTANCE, t	−0.627**	0.027	−0.665**	0.026	−0.545**	0.027
TRADE, $t-1$	14.304**	3.129	—	—	16.826**	3.459
PTA DENSITY, $t-1$	−37.658**	3.971	−23.331**	2.636	−32.651**	3.263
PTA DENSITY^2, $t-1$	−364.91**	83.59	−690.87**	70.01	−455.14**	82.62
DEMOCRACY, $t-1$	0.065**	0.006	0.047**	0.005	0.059**	0.005
GDP, $t-1$	−0.273**	0.059	−0.133*	0.054	−0.311**	0.061
PER CAPITA GDP, $t-1$	0.010*	0.004	0.016**	0.004	0.018**	0.004
GROWTH, $t-1$	−0.022**	0.008	—	—	0.006	0.008
TRADE PARTNER PTA COVERAGE, $t-1$	3.040**	0.135	2.765**	0.128	3.073**	0.142
YEAR, t	−0.503**	0.042	−0.395**	0.025	−0.040*	0.018
POSTCOMMUNIST, t	—	—	—	—	2.772**	0.209
FORMER COLONIAL RELATIONSHIP, t	—	—	—	—	1.511**	0.197
CONSTANT	968.966**	79.678	763.259**	48.358	73.128*	35.361
Number of observations	149,308		259,267		149,308	
Model χ^2	2661.9**, 22 d.o.f.		3069.4**, 19 d.o.f.		2768.6**, 24 d.o.f.	
Pseudo-R^2	0.390		0.360		0.414	

Note: Shaded rows identify the variables that are central to our argument. Two-tailed tests are conducted for all estimates. Robust standard errors (SEs) clustered over dyads. Six duration dependence splines omitted from table. PTA DENSITY is "centered" by subtracting .075 to reduce collinearity without other effects. d. o. f. = degrees of freedom.
**$p < .01$.
*$p < .05$.

TABLE 3. *Duration dependent logit models of PTA formation, undirected dyads*

Variable	*Model 4 (1950–93)*		*Model 5 (1948–98)*		*Model 6 (1950–93)*	
Prob (PTA) = 1	*Coefficient*	*SE*	*Coefficient*	*SE*	*Coefficient*	*SE*
NUMBER OF MEMBERS, $t-1$	0.289**	0.046	0.142**	0.012	—	—
DETRENDED # OF MEMBERS, $t-1$	—	—	—	—	0.258**	0.034
MTN ROUND UNDERWAY, t	1.911**	0.179	1.827**	0.160	1.652**	0.181
NEW DISPUTE WITH 3RD PARTY, $t-1$	0.546**	0.161	0.573**	0.127	0.595**	0.159
DISPUTE LOSS WITH 3RD PARTY, $t-3$	1.415**	0.146	1.098**	0.112	1.534**	0.145
NEW DISPUTE BETWEEN i AND j, $t-1$	−0.700	0.739	−0.920	0.633	−0.492	0.735
ALLIANCE, $t-1$	0.170	0.138	—	—	0.434**	0.145
DISTANCE, t	−0.566**	0.037	−0.605**	0.031	−0.431**	0.036
TRADE, $t-1$	33.070**	5.482	—	—	43.086**	5.980
PTA DENSITY, $t-1$	−45.103**	5.833	−22.836**	2.971	−38.741**	4.364
PTA DENSITY^2, $t-1$	−203.29*	93.98	−621.78**	69.53	−281.46**	85.06
DEMOCRACY i, $t-1$	0.063**	0.010	0.039**	0.009	0.059**	0.009
DEMOCRACY j, $t-1$	0.041**	0.010	0.027**	0.009	0.038**	0.010
GDP i, $t-1$	−0.171	0.119	0.020	0.118	−0.301*	0.136
GDP j, $t-1$	−0.188	0.193	−0.021	0.101	−0.311	0.220
PER CAPITA GDP i, $t-1$	−0.031**	0.007	−0.009	0.006	−0.024**	0.007
PER CAPITA GDP j, $t-1$	−0.007	0.007	0.006	0.006	−0.002	0.007
GROWTH i, $t-1$	−0.045**	0.015	—	—	−0.017	0.014
GROWTH j, $t-1$	−0.042**	0.014	—	—	−0.019	0.014
TRADE PARTNER PTA COVERAGE i, $t-1$	3.458**	0.248	2.591**	0.192	3.907**	0.260
TRADE PARTNER PTA COVERAGE j, $t-1$	3.528**	0.244	2.673**	0.202	4.007**	0.261
YEAR, t	−0.573**	0.064	−0.374**	0.026	−0.049*	0.023
POSTCOMMUNIST, t	—	—	—	—	3.088**	0.225
FORMER COLONIAL RELATIONSHIP, t	—	—	—	—	2.030**	0.255
CONSTANT	1103.07**	121.91	723.037**	50.786	89.410	46.433
Number of observations	65,153		115,846		65,153	
Model χ^2	1414.0**, 27 d.o.f.		2276.0**, 23 d.o.f.		1449.2**, 29 d.o.f.	
Pseudo-R^2	0.465		0.388		0.493	

Note: Shaded rows identify the variables that are central to our argument. Two-tailed tests are conducted for all estimates. Robust standard errors (SEs) clustered over dyads. Six duration dependence splines omitted from table. PTA DENSITY is "centered" by subtracting .075 to reduce collinearity without other effects. d. o. f. = degrees of freedom.
**$p < .01$.
*$p < .05$.



Note: Horizontal axis is in logarithmic scale. For all variables that are not dichotomous and that have a positive (negative) coefficient, "relative risk" is the predicted probability of PTA formation when the variable in question equals its sample mean plus one standard deviation (sample mean), divided by the predicted probability of PTA formation when it equals its sample mean (sample mean plus one standard deviation) holding other variables at their sample means. For dichotomus variables, the comparison is between values of 1 and 0. (The ratios are inverted for GDP and DISTANCE, whose coefficients are negative.)

FIGURE 3. *Estimated substantive significance of selected variables in model (1), in terms of relative risk*

almost doubles. If either state recently lost a GATT/WTO dispute with a third party, the probability of a new preferential grouping between them more than triples. Even if none of these variables add more than 0.1 percent to the chance of any two states entering a PTA, as many as eight additional bilateral PTAs would form in a single year as a result (since there were more than 8,000 GATT/WTO dyads by the end of the period we analyze). Clearly, the multilateral trading system has played a substantively important role in shaping PTA formation.

Moreover, these results are quite robust. For instance, as shown in models (2) and (5), the reduction in sample size that occurs when ALLIANCE, GROWTH, and TRADE are included has little discernible effect on the estimates of the variables pertaining to the multilateral trading regime. Nor do these estimates change if we add a number of omitted variables that seem likely to influence the formation of PTAs. For example, we include a measure of hegemony in the international trading system,[92] a variable indicating whether *i* and *j* were antagonists in a milita-

92. Gilpin 1987.

rized interstate dispute in year $t - 1$,[93] a measure of trade dependence between i and j, and country-specific fixed effects.[94] Finally, we exclude all observations including the United States, an outlier in terms of GATT/WTO dispute participation,[95] or the founding members of the EC, which are outliers in terms of PTA formation. Each of these analyses yields estimates quite similar to those in Tables 2 and 3.

A related issue that merits consideration is whether our findings about the effects of the multilateral regime might really stem from the wave of postcolonialism in the 1960s or the wave of postcommunism in the 1990s. Members of the same imperial system are probably more likely to establish PTAs than other states once colonialism ends, and the states of Eastern Europe have demonstrated a remarkable zeal for regional trade arrangements since the Berlin Wall's collapse. Also, it is well known that the waves of postcolonialism and postcommunism took place at roughly the same time as the two waves of regionalism we discussed earlier. Likewise, how much of the proliferation in PTAs can we attribute to heightened GATT/WTO membership given that its growth is highly correlated with time? To address these issues, we add one dummy variable to the model that equals 1 if either i or j has transitioned from a communist regime (POSTCOMMUNIST) and another indicating whether both states were members of the same colonial system at some point after World War II (FORMER COLONIAL RELATIONSHIP). We also detrend NUMBER OF MEMBERS, replacing this variable with the residuals of a regression of NUMBER OF MEMBERS on YEAR.

The results are reported in the columns labeled models (3) and (6) in Tables 2 and 3, respectively. Not surprisingly, the results show that postcommunist states and those that were in the same imperial system are much more likely to form PTAs than other countries. Particularly important for present purposes, however, is that the estimates of our four key variables (with NUMBER OF MEMBERS now detrended) are virtually identical to those in models (1) and (4), still positive and statistically significant.[96] Thus, we continue to find strong evidence that develop-

93. Jones, Bremer, and Singer 1996.

94. We measure hegemony two ways: (1) using the U.S. portion of total world imports plus exports, based on data taken from IMF 1999a, and (2) using the ratio of U.S. GDP to the GATT/WTO member with the next highest GDP in year $t - 1$. We measure trade dependence using the value of bilateral trade divided by the GDP of i and j, respectively.

95. Reinhardt forthcoming.

96. We conducted a number of additional robustness tests as well. PTA formation is a rare event. King and Zeng have recently argued that using a logit model to analyze rare events can yield biased results. King and Zeng 2001. We therefore estimate models (1) and (4) using a method they developed to correct such bias. The results are virtually identical to those in Tables 2 and 3, indicating that our findings are not undermined by any rare-events bias. If we reestimate the models coding TRADE as 0 when the IMF records an annual trade flow as missing, the results are effectively identical. The same is true if we use the natural log of GDP, PER CAPITA GDP, DISTANCE, and TRADE (substituting the minimum non-zero sample value of DISTANCE and TRADE when they are exactly 0). Further, the coefficients of our key variables remain positive and significant even if we (1) estimate heteroskedastic probit variants of models (1) and (4) (*Stata* 7.0's *hetprob, robust*) with variance functions conditioned

ments within the multilateral regime are important forces shaping the proliferation of PTAs.[97]

It is important to reiterate that the pronounced effect of the GATT/WTO system on PTA formation is observed even after accounting for the influence of alliances, market size, national income, the business cycle, regime type, distance, the flow of trade, and various other factors shaping strategic interaction in the international trading system. The effects of these control variables largely accord with our expectations, although a few of them depend on the model's specification. For example, economically larger states are less likely to join PTAs than their smaller counterparts, but this influence is much stronger when we focus on directed rather than undirected dyads. In addition, preferential groupings are unlikely to form between countries that are geographically distant, poor, or enjoy high levels of economic growth. Again, though, the effects of economic development and growth depend somewhat on which model is considered. Democracies tend to form PTAs, as do allies and states that trade extensively. PTAs are also a product of "bandwagoning" insofar as a country is more likely to enter a preferential arrangement with other states that already belong to groupings with its primary trade partners. Finally, there is evidence of a saturation or ceiling effect in the formation of preferential arrangements. Because we "centered" PTA DENSITY to reduce collinearity, the negative and statistically significant estimates of PTA DENSITY and PTA DENSITY^2 indicate that there is an inverted U-shaped relationship between the proportion of country-pairs in preferential groupings and the odds of a given pair of states establishing a new PTA.

It is also important to point out that the features of the GATT/WTO system that we have emphasized tend to have larger substantive effects on PTA formation than the control variables in our model. As shown in Figure 3, the effects of DISTANCE, TRADE PARTNER PTA COVERAGE, and DEMOCRACY are relatively sizeable, ranging from about a fivefold decrease in the predicted probability of forming a PTA if the mean distance between states *i* and *j* rises by one standard deviation to a two-thirds increase in this probability if the average regime score experiences a similar rise. The remaining control variables, however, have much smaller effects on the likelihood of entering a preferential grouping.

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on TRADE, GDP, YEAR, DISTANCE, NUMBER OF MEMBERS, and TRADE PARTNER PTA COVERAGE; or (2) use a nonproportional hazards specification by including the interaction of all variables with the (logged) number of years the pair has gone without a PTA.

97. Still another possibility is that our findings about the strong direct effects of GATT/WTO membership might stem from an underlying demand for greater trade, stimulating participation in all international trade organizations, both preferential and multilateral. However, we have controlled for many of the economic factors that are likely to influence such demand, including GDP, growth, and per capita income. We also controlled for time, which may proxy for any secular increase in the demand for greater foreign commerce. Finally, we took account of the flow of trade as well as various features of the international trading system (for example, the existence of a multilateral negotiating round and the portion of GATT/WTO dyads that belong to a PTA), additional factors that are likely to be related to the demand for trade. Consequently, there is little reason to worry that our findings reflect the influence of such demands.

Interpretation of the Results

One of our core findings is that participation and undesirable outcomes in GATT/WTO disputes induce countries to seek PTAs with third parties. Once formed, do PTAs actually insure against future losses and improve a state's bargaining position in such conflicts, as our argument implies? Leaders seem to believe so. For example, Malaysian Prime Minister Mahathir's reaction to the U.S. steel safeguard tariffs, which were imposed in spring 2002 and subsequently challenged under WTO dispute rules, was to renew his push for trade integration in Southeast Asia.[98] No statistical study has yet examined the impact of PTA membership on GATT/WTO dispute outcomes. However, we can offer some preliminary evidence on this score by adding our data on each disputant's participation in PTAs to an existing statistical model of GATT dispute outcomes.[99]

Specifically, to tap the bargaining power and insurance provided by preferential groupings for any given state, we sum the GDP of all its PTA partners with its own national income. The logged value of this variable is statistically significant for both state *i* and state *j* when we include it in the model of dispute outcomes, indicating that greater GDP increases the likelihood of a favorable outcome.[100] If, however, we subtract the PTA partners' GDPs from this variable, leaving just the disputant's GDP, it is no longer significant.[101] For a small complainant (say, with a GDP of $10 billion), joining a PTA with partners possessing $500 billion of GDP boosts its ability to leverage full concessions from a typical GATT/WTO defendant by a third (increasing the predicted probability from 0.27 to 0.36). The effect of such a change would of course be compounded over numerous future disputes. What is more, this finding is not driven by PTAs with a common external tariff, because the sample includes few customs union members.[102] Instead, the bargaining benefits of PTAs in GATT/WTO disputes are due almost entirely to FTAs, which make up most of the groupings considered here. It is thus quite plausible to attribute the finding that GATT/WTO disputes are associated with PTA formation to states' motivation to seek extra insurance and bargaining power because of such disputes.

As a more specific illustration of the links between GATT disputes and PTA formation, consider Venezuela's free trade areas with Mexico and Colombia. These preferential arrangements were formed in 1995, on the heels of Venezuela's first

98. *Business Times (Malaysia)*, 23 May 2002, 2.

99. To this end, we use model (2) from Reinhardt 2001, 178, and the updated data from Reinhardt forthcoming.

100. This model controls for whether a GATT panel is formed, how the panel rules (if at all), and several features of the measure in dispute.

101. Results available on request. The correlation between a disputant's GDP and the sum of its PTA partners' GDP plus its own is too high to include both in the same model.

102. Because the EC, by far the most frequent customs union disputant, acted as a unit in GATT disputes, its GDP is already counted as the sum of its members' GDP. Our variable thus only contributes the GDPs from the EC's external PTA partners, which did not share the same external tariff.

experiences as a GATT complainant in disputes against the EU and United States. Further, the United States and Canada both were involved in rapidly increasing numbers of GATT/WTO disputes, many against the EU, in the years immediately preceding the establishment of their free trade area. Chile participated in just five disputes between 1949 and 1987, but was embroiled in thirteen high-stakes conflicts with the United States and the EU from 1988 to 1997. It is no coincidence that Chile completed (separate) talks aimed at creating free trade areas with Mexico, Canada, Mercosur, Bolivia, Colombia, Ecuador, and Venezuela in the second half of the 1990s.[103] In a similar vein, all of the ASEAN members together participated in just one GATT dispute before 1987. By contrast, they participated in seven during the years leading up to the 1993 AFTA accord, which the prime ministers of Singapore and Malaysia claimed would "give ASEAN a bigger voice . . . in talks with the European Community."[104] This evidence is obviously anecdotal, but—consistent with our quantitative results—it suggests that the GATT/WTO dispute settlement system has contributed to the proliferation of PTAs.

Anecdotal evidence also lends support to our hypothesis that multilateral trade negotiations induce PTA formation. For instance, in the midst of the Uruguay Round, the difficulty of reaching agreement among such a heterogeneous group of countries prompted Singapore's foreign minister to "question the usefulness" of GATT and to endorse an ASEAN-based free trade area.[105] APEC ministers resolved to "use their combined strength as leverage against Europe" to bring a quick end to the Uruguay Round in 1993.[106] Equally, the Caribbean states formed the Caribbean Free Trade Association (CARIFTA) during the Kennedy Round and then CARICOM during the Tokyo Round at least partly to boost their collective negotiating leverage in these multilateral trade negotiations.[107]

Conclusions

Central to the GATT/WTO system are efforts to liberalize trade on a multilateral basis, expand the number of parties to this organization, and enforce compliance with its rules through a reliable dispute settlement procedure. GATT/WTO has been remarkably successful in meeting these objectives. At the same time, however, such efforts have contributed greatly to the rise of PTAs, institutions that pose a challenge to GATT/WTO's principle of nondiscrimination. Although it is widely recognized that PTAs have proliferated rapidly among GATT/WTO members, there has been little systematic research addressing how developments within the multilateral regime have contributed to their spread.

103. Smith 2000, 152.
104. *Straits Times*, 23 October 1993, 1.
105. *Daily Telegraph*, 10 February 1993, 13.
106. *Straits Times*, 3 November 1993, 4.
107. Andriamananjara and Schiff 2001.

We argue that GATT/WTO members form preferential groupings to improve their bargaining position in trade negotiations with third parties. Heightened bargaining power is especially useful during multilateral trade negotiations, when GATT/WTO adds members, and during commercial disputes. Specifically, adding members to the MTN regime reduces each participant's leverage, creating incentives for states to pool their influence by establishing a PTA. Increasing the regime's size can also render multilateral negotiations more contentious and harder to conclude by expanding the range of interests that need to be accommodated. Faced with greater difficulty arriving at any multilateral solution to commercial issues as the size of GATT/WTO grows, its members may find it useful to enter smaller, preferential groupings composed of states with common economic interests.

In the same vein, preferential arrangements also provide participants with insurance against future disruptions of commerce that might arise if multilateral negotiations stall or the system weakens as a growing number of states with heterogeneous commercial preferences accede to GATT/WTO. Furthermore, in the course of striking MTNs or resolving ongoing disputes, states may enter PTAs to solidify important trade relations or to bolster their market power in the hopes of leveraging greater concessions from third parties. States also look to the success of the MTN regime's enforcement system for cues. If too many disputes end in nascent trade wars, members lose confidence in the multilateral trading system. To secure their market access and to obtain the greatest possible benefits from the multilateral regime, states have reason to lock open key markets by forming PTAs with crucial trade partners. Our results, therefore, indicate that not only have GATT/WTO rules done little to constrain the emergence of PTAs, developments within the multilateral trade regime have actually contributed to the rise of these arrangements.

Our findings have implications for the study of both economic regionalism and international relations. Scholars of international relations have devoted considerable attention to identifying the factors leading to the establishment of multilateral institutions. Far less effort, however, has been devoted to addressing whether and, if so, how these institutions influence state behavior.[108] In addition, too little effort has been made to address how changes within multilateral institutions affect the actions of members. Our analysis bears heavily on these issues. That GATT/WTO has influenced the behavior of its members is no surprise. After all, it is widely understood that this institution has generated substantial trade liberalization. More surprising, though, is that developments within it have systematically contributed to the formation of discriminatory commercial groupings. In ways not previously recognized, core features of the multilateral trading regime—such as its growing membership, dispute settlement system, and periodic negotiating rounds—have prompted states to enter preferential arrangements that clash with the regime's fundamental norm of nondiscrimination.

108. See Keohane 1984; and Martin and Simmons 1998, 743.

Of course, this situation does not imply that PTAs are welfare-degrading or that they will undermine the multilateral trading system. On the one hand, parties to GATT/WTO with protectionist interests may set up PTAs to countervail multilateral trade liberalization. Unlike unilateral measures such as raising tariffs, forming a preferential grouping allows states to discriminate against third parties without breaching GATT/WTO rules.[109] On the other hand, however, parties to GATT/WTO with an especially liberal orientation may set up PTAs because doing so allows them to achieve greater openness than could otherwise be realized in a multilateral setting.[110] Either possibility is consistent with our analysis, which is silent on the global welfare implications of preferential groupings.

During the past decade, a considerable amount of interest has been expressed in whether PTAs will be "building blocks" or "stumbling blocks" to greater multilateral liberalization.[111] Regardless of whether PTAs will bolster or undermine the WTO, our results point out the problems associated with ignoring the reverse line of causation, namely, how multilateral liberalization bears on the formation of PTAs. Furthermore, many studies have analyzed the conditions influencing whether states choose multilateral or bilateral strategies.[112] Our analysis suggests some conditions under which a multilateral approach is likely to grow less attractive, prompting states to pursue PTAs with greater intensity. But whereas existing studies often assume that states choose either bilateral or multilateral strategies, our findings also indicate that these strategies are not mutually exclusive. States frequently rely on both types of strategies simultaneously, for example, engaging in multilateral trade negotiations and establishing a PTA at the same time.[113]

In addition, the preceding results show that the determinants of PTA formation are not limited to developments within GATT/WTO. For instance, there is considerable evidence that the creation of preferential groupings is guided by strategic interaction.[114] As more country-pairs become covered by these groupings, the odds increase that those pairs that do not belong to the same PTA will establish one in response. As Alan Winters puts it, PTAs resemble street gangs: "you may not like them, but if they are in your neighborhood, it is safer to be in one."[115] PTA formation, however, is also marked by a saturation or ceiling effect. Once most dyads that could benefit by creating a preferential grouping have done so,

109. Pomfret 1997.

110. See Kahler 1992; and Westhoff, Yarbrough, and Yarbrough 1994. Westhoff, Yarbrough, and Yarbrough present a framework that helps to explain why PTAs might allow subsets of GATT/WTO members to generate more trade liberalization than is possible in the GATT/WTO setting, especially as the preferences of its members become more heterogeneous.

111. See Bhagwati 1993; and Lawrence 1996.

112. Yarbrough and Yarbrough 1992.

113. Kahler 1992. In U.S. Trade Representative Zoellick's words, "We can walk and chew gum at the same time." *Washington Post*, 20 November 2002, E3.

114. See Baldwin 1997; Fernández and Portes 1998; Mansfield 1998; Oye 1992; Pomfret 1997; and Yarbrough and Yarbrough 1992.

115. Quoted in Crawford and Laird 2001, 201.

the likelihood of PTA formation declines. Further, allies are more likely to enter into a PTA than other states, which accords with the argument that alliances help to internalize the security externalities stemming from arrangements that liberalize trade among participants. We also find some support for functionalist claims that international economic institutions tend to form in response to increasing interdependence and rising levels of economic exchange. The flow of trade is directly related to the establishment of PTAs, although its effect is substantively small.

Finally, domestic conditions influence whether states enter preferential arrangements. Democracies are more likely to join such arrangements than autocracies, economically smaller states are generally more likely to do so than their larger counterparts, and economic downturns tend to promote PTA formation. These findings highlight the obvious, but important, point that preferential trading arrangements are caused by various factors operating at different levels of analysis. As such, no single theoretical approach will suffice to explain their proliferation fully.

While our results shed new light on the links between the multilateral trade regime and PTAs, they also raise various questions for future research. For example, the form, trajectories, and duration of preferential trading agreements vary widely.[116] What determines the institutional form of a PTA—particularly whether it is a common market, a customs union, an FTA, or a different type of arrangement? Why are some PTAs—such as the Latin American Free Trade Association—never fully implemented, while others—like Mercosur—experience rapid consolidation?[117] Why do some FTAs ultimately evolve into customs unions (such as when former EFTA members joined the EU), while others do not? What explains whether a PTA "broadens" by adding new members, "deepens" its scope by covering policies and issues not previously included (such as labor or capital mobility, monetary policy, etc.), strengthens its implementation and enforcement mechanisms, or simply dies a quiet death? Answering these questions is sure to promote an improved understanding of regionalism, as well as the international political economy.

During the past half-century, GATT/WTO has met with considerable success in fostering multilateral trade liberalization. At the same time, however, its success has had various unintended consequences.[118] Here, we have identified one especially important consequence that has been largely overlooked. The very instruments of GATT/WTO's progress—its growing membership, active dispute settlement, and frequent trade negotiations—encourage states to seek bilateral options to secure the greatest possible benefits from the multilateral regime.

116. Smith 2000.
117. WTO 1995a, 34–35.
118. For discussion of the unintended—and often unwelcome—consequences of international institutions, see Martin and Simmons 1998, 749–51; and Barnett and Finnemore 1999.

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