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Trade, institutions, and the timing of GATT/WTO accession in post-colonial states

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Abstract Prior to 1995, when the World Trade Organization (WTO) superseded the General Agreement on Tariffs and Trade (GATT), a number of states took advantage of GATT Article XXVI:5(c), which allowed them—as former colonies or component territories of existing GATT members—to quickly and simply join the multilateral trade regime. The speed with which these post-colonial accessions took place, however, varied widely: some states joined immediately upon independence, while others joined much later. Still other post-colonial states passed on this opportunity, only to subsequently begin the longer, more onerous accession process required of other GATT/WTO applicants. Our paper seeks to explain this variation in the timing of post-colonial states' accession to the GATT/WTO. We argue that three key variables explain the timing of accession decisions: 1) a country's trade ties with existing member-states; 2) its existing preferential trade agreement (PTA) commitments; and 3) its domestic political institutions—specifically, the country's level of democracy. Furthermore, we argue that the effects of these variables are conditional upon each other: post-colonial countries with more extensive trade ties to existing member-states were more likely to accede rapidly under Article XXVI:5(c), but only under specific conditions—namely, when they had not already locked in ties with key trading partners through bilateral or regional PTAs, and when they were governed by a more democratic regime. We test this argument empirically using an original dataset of 61 post-colonial states from 1951 to 2004. Our results strongly

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support this explanation of GATT/WTO accession and help to clarify the pattern of participation in the multilateral trading system that we have observed over the last half-century.

Keywords World Trade Organization (WTO) · General Agreements on Tariffs and Trade (GATT) · Accession · Preferential trade agreements (PTAs) · International trade · International institutions · Democracy

JEL Classification F130

1 Introduction

The multiple waves of decolonization in Africa, Asia, and the Western hemisphere in the latter half of the twentieth century introduced dozens of new post-colonial states into the international system.¹ Nearly all of these post-colonial states, such as Nigeria, Indonesia, Mali, Angola, Jamaica, and Vietnam, achieved independence from countries that were members of the General Agreement on Tariffs and Trade (GATT). As such, each was eligible to join the multilateral trade regime under Article XXVI:5(c) of the GATT charter, a clause designed to quickly and simply grant membership to new states that had been, prior to independence, under GATT jurisdiction:

“If any of the customs territories, in respect of which a contracting party has accepted this Agreement, **possesses or acquires full autonomy in the conduct of its external commercial relations** and of the other matters provided for in this Agreement, such territory shall, **upon sponsorship through a declaration by the responsible contracting party establishing the above-mentioned fact, be deemed a contracting party.**” (emphasis added)

A country acceding to the GATT under this Article did so “on the terms and conditions previously accepted by the metropolitan government.”² Thus, in contrast to the standard accession process under GATT Article XXXIII, post-colonial states were not required to negotiate new terms of trade liberalization prior to becoming contracting parties.

Although all post-colonial states were eligible to invoke Article XXVI:5(c) upon their independence, individual countries pursued very different paths (Table 1). Some, such as Nigeria and Jamaica, joined almost immediately, applying for membership and becoming contracting parties within a year of independence. In contrast, some countries, such as Angola and Mali—while maintaining status as *de facto* non-member participants in the GATT—chose to remain formally outside the organization for decades after independence. They became full contracting parties

¹ For the purposes of this paper, we define a post-colonial state simply as an independent country that was formerly a colony or constituent part of an existing GATT member and was therefore eligible to join the GATT under Article XXVI:5(c). Although this term has been used widely in comparative politics to analyze the impact of colonial experience on politics and development in African countries and other former colonies (see, e.g., Young 2004), our definition is narrowly focused on classifying these states’ pathway of eligibility to join the GATT.

² GATT Document BISD 10S/73.

Table 1 GATT/WTO Status of Post-Colonial States, 1949–2008

Early joiners			Early joiners (cont)			Pre-transition		Post-transition	
State (Independence)	Accession	State (Independence)	Accession	State (Independence)	Accession	State (Independence)	Accession	State (Independence)	Accession
Indonesia (1949)	1950	Kenya (1963)	1964	Mozambique (1975)	1992	Croatia (1991)	1992	Croatia (1991)	2000
Ghana (1957)	1957	Malawi (1964)	1964	Namibia (1990)	1992	Macedonia (1991)	1992	Macedonia (1991)	2003
Malaysia (1957)	1957	Malta (1964)	1964	Bahrain (1971)	1993	Cambodia (1953)	1993	Cambodia (1953)	2004
Nigeria (1960)	1960	Togo (1960)	1964	Brunei Darussalam (1984)	1993	Tonga (1970)	1993	Tonga (1970)	2007
Sierra Leone (1961)	1961	Burundi (1962)	1965	Czech Republic (1993)	1993	Vietnam (1954)	1993	Vietnam (1954)	2007
Tanzania (1961)	1961	Gambia (1965)	1965	Dominica (1978)	1993	Cape Verde (1975)	1993	Cape Verde (1975)	2008
Israel (1948)	1962	Guyana (1966)	1966	Fiji (1970)	1993	Algeria (1962)	1993	Algeria (1962)	neg
Trinidad and Tobago (1962)	1962	Rwanda (1962)	1966	Mali (1960)	1993	Bahamas (1973)	1993	Bahamas (1973)	neg
Uganda (1962)	1962	Barbados (1966)	1967	Slovakia (1993)	1993	Bosnia and Herzegovina (1992)	1993	Bosnia and Herzegovina (1992)	neg
Benin (1960)	1963	Mauritius (1968)	1970	St. Lucia (1979)	1993	Comoros (1975)	1993	Comoros (1975)	neg
Burkina Faso (1960)	1963	Congo, Dem Rep (1960)	1971	St. Vincent & Grenadines (1979)	1993	Equatorial Guinea (1968)	1993	Equatorial Guinea (1968)	neg
Cameroon (1960)	1963	Bangladesh (1971)	1972	Swaziland (1968)	1993	Laos (1963)	1993	Laos (1963)	neg
Cent African Republic (1960)	1963	Singapore (1965)	1973	Angola (1975)	1994	Libya (1951)	1994	Libya (1951)	neg
Chad (1960)	1963	Suriname (1975)	1978	Djibouti (1977)	1994	Samoa (1962)	1994	Samoa (1962)	neg
Congo, Rep (1960)	1963	Zambia (1964)	1982	Grenada (1974)	1994	Sao Tomé & Príncipe (1975)	1994	Sao Tomé & Príncipe (1975)	neg
Cyprus (1960)	1963	Belize (1981)	1983	Guinea (1958)	1994	Seychelles (1976)	1994	Seychelles (1976)	neg
Gabon (1960)	1963	Maldives (1965)	1983	Guinea-Bissau (1974)	1994	Sudan (1956)	1994	Sudan (1956)	neg
Ivory Coast (1960)	1963	Antigua and Barbuda (1981)	1987	Papua New Guinea (1975)	1994	Vanuatu (1980)	1994	Vanuatu (1980)	neg
Jamaica (1962)	1963	Botswana (1966)	1987	Qatar (1971)	1994	Yemen (1967)	1994	Yemen (1967)	neg
Kuwait (1961)	1963	Morocco (1956)	1987	Slovenia (1991)	1994	Fed States of Micronesia (1986)	1994	Fed States of Micronesia (1986)	–
Madagascar (1960)	1963	Lesotho (1966)	1988	Solomon Islands (1978)	1994	Kiribati (1979)	1994	Kiribati (1979)	–
Mauritania (1960)	1963	Tunisia (1956)	1990	St. Kitts & Nevis (1983)	1994	Marshall Islands (1986)	1994	Marshall Islands (1986)	–
Niger (1960)	1963			United Arab Emirates (1971)	1994	Nauru (1968)	1994	Nauru (1968)	–
Senegal (1960)	1963					Palau (1994)		Palau (1994)	–
						Somalia (1960)		Somalia (1960)	–
						Tuvalu (1978)		Tuvalu (1978)	–

neg = negotiations in progress

only in the early 1990s, along with twenty-one other post-colonial states, when the window to invoke Article XXVI:5(c) was closing (the WTO did not include a similar offer of simple accession). Finally, other states, such as Sudan and Vietnam, chose to remain formally outside the GATT until after the formation of the WTO, thereby passing up the opportunity to join easily under Article XXVI:5(c). Both have since applied for WTO membership, setting in motion a decade-long process of negotiation over the terms of accession. This WTO accession process requires a comprehensive report by a Working Party on all facets of each states' economy, as well as extensive bilateral negotiations with any and all interested member states. States are often forced to make difficult concessions during the years spent attempting to join. Vietnam, for example, was finally admitted to the WTO in 2007, after successfully negotiating a Protocol of Accession specifying tariff rates on everything from freight services to rhinoceros horns and pistol-shaped pocket lighters to ship propeller oil seal rings. For Sudan, negotiations are still ongoing.

These example cases are not unique among post-colonial states, nor are they easy to explain through any obvious pattern of region, former colonizing power, decade in which independence was achieved, or whether statehood was achieved through violence or peaceful agreement. As the histogram in Fig. 1 illustrates, many states pursued formal membership nearly immediately following independence, while many others waited several decades.

What explains this substantial variation in the timing of post-colonial states' accessions to the GATT/WTO? Why did some countries rush to become contracting parties, while others chose to delay or forego the chance to become full members in the multilateral trade regime? Furthermore, why did some countries pass entirely on the Article XXVI:5(c) option, only to subsequently pursue the more onerous accession process required of non-colonial states?

We argue that three key variables explain the timing of GATT/WTO accession by post-colonial states: 1) a country's trade ties with existing member-states; 2) its existing preferential trade agreement (PTA) commitments; and 3) its domestic political institutions (specifically, the country's regime type/level of democracy). Furthermore, we argue that the effects of these variables are conditional upon each other. Specifically, post-colonial countries with more extensive trade ties to existing member-states were more likely to accede rapidly under Article XXVI:5(c) only when they had not already locked in ties with key trading partners through bilateral or regional PTAs, and when they were governed by a more democratic regime. In short, the interaction between trade integration, international trade agreements, and domestic political institutions explains variation in the timing of a country's accession to the GATT/WTO following independence from its colonial rulers.

The remainder of this paper proceeds as follows. We first discuss the Article XXVI:5(c) accession process in greater detail. We then review the existing literature on the political economy of GATT/WTO accession and discuss the potential costs and benefits of formal membership for post-colonial states. The following section develops further our theory and hypotheses, which we then test empirically using an original dataset of 61 post-colonial states from 1951 to 2004. Our results strongly support our explanation of GATT/WTO accession and help clarify the pattern of participation in the multilateral trading system that we have observed over the last half-century. Finally, we conclude with brief discussions of possible avenues for

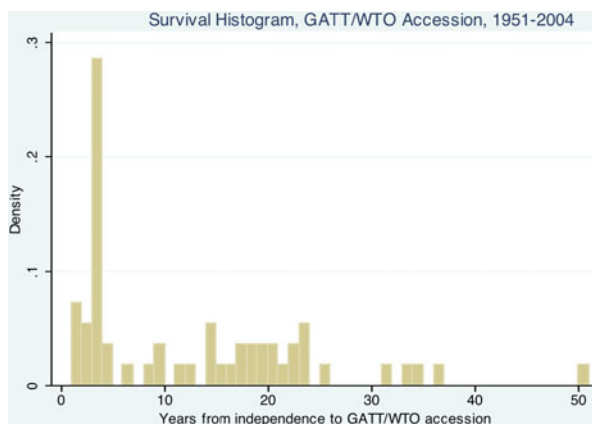


Fig. 1 Survival histogram, GATT/WTO accession, 1951–2004

further research and the broader implications of our findings for our understanding of international cooperation.

2 Post-Colonial Accession Under GATT Article XXVI:5(c)

As former territories of existing member-states, post-colonial states that wished to become full members (contracting parties) of the GATT themselves were required to meet only two conditions. First, each country's former colonial ruler needed to officially certify its independence. In theory, this step created the possibility of politically motivated delays by former colonial powers. The metropolitan power's certification, however, pertained only to the independence of the post-colonial territory, rather than to the content or merits of its trade policies. In practice, moreover, this certification was always granted in a timely manner. For example, the United Kingdom certified Nigeria's independence (October 1, 1960) to the GATT on September 26, 1960, while France certified Gabon's independence (August 17, 1960) on August 18, 1960. Indeed, the relevant GATT documents illustrate that—at least in every case through the 1980s—metropolises provided certification of their former colonies' economic sovereignty within a few weeks or months of independence.³

Once the former colonial power had certified independence, post-colonial states entered a transitional period, in which they were expected “to apply *de facto* the General Agreement” while they “consider[ed] their future commercial policy and the question of their relations with the General Agreement.”⁴ During this period of *de*

³ GATT Document MTN.GNG/NG7/W/40/Rev.1, “*De facto* Status and Succession: Article XXVI:5(c),” 15 July 1988.

⁴ GATT Document C/130, “*De facto* Application of the General Agreement” (28 June 1984), 1. Originally, this transitional period was “determined in each case by the contracting parties” (GATT Document BISD 65/12). It was later (1958) set at two years from the time of autonomy, although states frequently requested that this period be extended (GATT Document BISD 9S/17); since such extensions “had always been granted,” the GATT contracting parties decided in 1967 to allow states to extend their *de facto* status indefinitely (C/130, 2).

facto status, post-colonial states were expected to “observe the substantive provisions of the General Agreement” but not “the procedural provisions”; in other words, they would “apply the schedule of concessions which the metropolitan government had agreed to apply to their territory,” but they were free to modify their tariff schedules and to invoke the GATT’s opt-outs for balance of payments problems or development purposes without having to formally notify the GATT Secretariat.⁵ This *de facto* status, however, did not allow post-colonial states to participate in new trade round negotiations, nor did it allow them to seek resolution of trade disputes under GATT Article XXIII.

Having met this first condition and become *de facto* participants in the GATT, post-colonial states were free to become full members simply by informing the GATT Secretariat of their desire to be deemed a contracting party. Once the GATT Secretariat certified this declaration, the post-colonial state acceded to the GATT under the “the terms and conditions previously accepted by the metropolitan government.”⁶ Thus, the route to accession under Article XXVI:5(c) was “a simple and straightforward process under which 64 newly independent countries from Africa, the Caribbean, and Asian-Pacific areas became GATT members” between 1947 and 1994 (Jones 2009b, 289). This straightforward accession path for post-colonial states differed markedly from that required of other applicant countries, which had to enter into negotiations over the terms of their accession under GATT Article XXXIII—a process which generally required the applicant state to make substantial trade liberalization concessions prior to becoming a full contracting party. In fact, in direct contrast to the standard accession process, Article XXVI:5(c) explicitly prevented other GATT member states from imposing their own demands on the acceding post-colonial state. As a result, this path to accession enabled former colonial territories to become full members in the multilateral trade regime “without making extensive reform commitments” (Tang and Wei 2009).

3 The Political Economy of GATT/WTO Accession

Formal accession to the GATT/WTO has potentially substantial benefits and far-reaching effects on a country’s trade patterns and broader economic development. Most importantly, accession guarantees a country permanent and unconditional most favored nation (MFN) status and protection from “arbitrary protectionist measures of major trading partners” (Cattaneo and Primo Braga 2009). Since most non-member states under the GATT and WTO already enjoy some form of preferential treatment (e.g., privileged access to the markets of former colonial powers), the gains from accession are less about foreign tariff cuts than about the transparency, stability, and security of these market access conditions. In fact, since preferential treatment outside of the GATT/WTO framework can easily and freely be revoked by one’s trading partners, this ability to lock in market access is the

⁵ C/130 (28 June 1984), 3. Although these *de facto* obligations were not mandatory, most post-colonial states (68% of country-years from 1948–1994) chose to abide by this *de facto* status while they remained formally outside of the GATT.

⁶ Ibid, 1.

primary and most direct benefit of accession for most countries. GATT/WTO membership also provides several further benefits, however, including the right to participate in international trade rule-making through the trade round process, and access to the regime's dispute settlement mechanism. At the domestic level, accession may bolster the credibility of a government's commitment to free trade (Bagwell and Staiger 1999). This credibility enhances the attractiveness of a country to foreign producers (by ensuring secure and predictable market access), while also benefiting local producers (by limiting the government's ability to discriminate against one sector in favor of another) (Cattaneo and Primo Braga 2009).

Set against these potential benefits, the price of GATT/WTO membership is the set of trade liberalization concessions a country must make under the standard accession process under Article XXXIII (or its WTO equivalent, Article XII). However, as noted above, post-colonial states were given the opportunity to join the GATT under Article XXVI:5(c) without engaging in such costly negotiations over new trade liberalization measures. The chief cost for these states, then, was the commitments made to continue to apply the rules of the institution in their trade policies, and to abide by these agreements as the GATT/WTO evolved in successive rounds of trade negotiations.

Why, then, do we observe such wide variation in the timing of GATT/WTO accession among these countries? Furthermore, why did some countries forego the opportunity to invoke Article XXVI:5(c) during the GATT era, only to later pursue the more stringent accession procedures under WTO Article XII? While the literature on the political economy of the GATT/WTO has grown rapidly in recent years, it has largely overlooked this important question about the timing and speed of states' accession to the organization. The limited work to date on events surrounding accession has largely taken the form of country-specific studies (Special issue of *China Quarterly* 2001; Alexandroff et al. 2002; Koehn 2002; Evenett et al. 2004; Trumm 2005). The handful of cross-national analyses have focused primarily on the duration of the negotiation process itself (Michalopoulos 2002; Evenett and Primo Braga 2005; Yu and Wong 2008) or analyzed post-colonial states' economic patterns with a different theoretical focus, treating GATT/WTO membership only as a control variable rather than the question of interest (Head et al. 2010). Rather than focusing on the timing of accession, scholars of international political economy have devoted the bulk of their efforts to measuring the effects of institutional membership on trade flows and national trade policies (Gowa and Kim 2005; Rose 2004; 2005; 2010; Goldstein et al. 2007; Subramanian and Wei 2007), to clarifying the dynamics of trade round negotiations (Baldwin 2007; Jones 2009a, b; Odell 2009), and to explaining variation in the escalation, outcome, and effects of trade disputes (Busch 2000; Busch and Reinhardt 2001, 2003, 2006; Reinhardt 2001; Guzman and Simmons 2002; Allee and Huth 2006; Kim 2008; Sattler and Bernauer 2008; Davis and Blodgett Bermeo 2009). Previous work has also explored the relationship of developing countries to the GATT/WTO (Pietras 1998; Finger and Winters 1998; Drahos 2003; Clapp 2006; Davis 2006; Patel 2008), as well as the potential for forum shopping in the settlement of trade disputes created by the overlapping jurisdictions of the GATT/WTO and preferential trade agreements (PTAs) (Davis 2006; Busch 2007; Naoi 2009).

4 Theory and Hypotheses

We argue that three key variables explain variation in the timing of GATT/WTO accession by post-colonial states: 1) the country's trade ties with existing member-states; 2) its existing PTA commitments; and 3) its domestic political institutions (specifically, the country's regime type/level of democracy). Furthermore, we argue that the effects of these variables are conditional and interactive: post-colonial states that are highly dependent on trade with existing GATT/WTO members will be more likely to accede rapidly under Article XXVI:5(c), but only under specific conditions—namely, when they have not already locked in ties with key trading partners through bilateral or regional PTAs and when they are governed by a more democratic regime.

4.1 Trade Ties with Existing GATT/WTO Members

Our argument begins with a straightforward hypothesis. All else equal, we expect a post-colonial state to accede more quickly when it trades more extensively with existing GATT/WTO member-states. The basic logic here is that accession offers a straightforward way to simultaneously lock in market access to many of one's key existing trading partners. In contrast, by formally remaining outside of the multilateral trade regime, post-colonial states may find themselves shut out of major export markets or forced to compete at a disadvantage against third-party states that already participate in the GATT/WTO, enjoy permanent MFN status, and are able to avail themselves of the regime's dispute settlement process. In either case, a sharp decline in trade with key partners is a real possibility with substantial long-term consequences: this may hinder export-led growth and industrialization and broader economic stagnation could threaten social or political unrest. This is particularly true for post-colonial states, which often remain heavily dependent on trade with their former rulers (and with other former or current colonies) and may not retain privileged access to these markets in the wake of independence. Consequently, joining the GATT/WTO serves as a powerful defensive measure for post-colonial governments seeking to ensure permanent and stable access to key export markets.

H1: All else equal, states with higher levels of trade coverage with existing GATT/WTO members will accede more rapidly following independence

Levels of GATT/WTO trade coverage varied widely across post-colonial states over time and across cases. Some newly independent states had relatively limited trade ties to existing GATT/WTO members at the time of independence (e.g., Djibouti 1978: 39% of trade with GATT members; Laos 1953: 49%; St. Lucia 1980: 50%), while others depended almost entirely on trade with existing member states (e.g., Jamaica 1962: 98%; Guyana 1966: 96%; Namibia 1990: 100%). This variation, we argue, determines the cost of remaining outside the multilateral trade regime for post-colonial governments. States which trade heavily with existing member states—because they have long-established economic partnerships, because their trade with specific member states has grown over time, or because key trading partners have joined the institution—are more likely to join the GATT/WTO at a

given point in time. Thus, even if GATT/WTO membership brings no additional material benefits in terms of opening new markets, increasing trade growth, or resolving trade disputes, the preservation of current market access with key trading partners provides a strong incentive for post-colonial states to opt for accession. Moreover, given the availability of Article XXVI:5(c) during the GATT era, this option allowed former colonies to lock in access to major export markets without making any substantial new concessions on trade policy beyond those the country was already committed to at the time of independence.

While more extensive trade with existing member-states provides a strong incentive for post-colonial states to more rapidly invoke Article XXVI:5(c) and accede to the GATT, there are reasons to believe that this is a necessary, rather than a sufficient, condition to explain the timing of accession. First, some former colonies with high levels of GATT/WTO trade coverage (e.g., Jamaica, 98%; Nigeria, 96%) joined very shortly after gaining independence, while others delayed accession for long periods of time. For example, Dominica only joined the GATT in 1993, despite the fact that 97% of its trade was with existing member-states when it gained independence in 1978. Likewise, Mali waited 33 years from independence in 1960 until accession in 1993, even though over 90% of its trade was with existing GATT/WTO member-states by the early 1980s. Second, many post-colonial states experienced little change in their level of GATT/WTO trade coverage from year to year, making it difficult to claim that high levels of coverage alone were a key causal determinant of accession timing. This raises the question of why concerns about market access or lock in gain salience at a specific point in time. In other words, what motivates a government that has enjoyed extensive trade relations with existing GATT/WTO member-states while outside the regime to change course and pursue accession under Article XXVI:5(c)? In order to answer this question, we argue that two additional variables must be considered: a country's existing preferential trade agreements (PTAs) and its regime type. Moreover, we argue that these variables condition the effect of GATT/WTO coverage on accession timing. In other words, we expect an interactive relationship between these three variables, which we test for explicitly in the analysis below.

4.2 Preferential Trade Agreements as a Partial Substitute for Accession

In spite of its potential attractiveness, GATT/WTO accession is only one possible option for countries seeking to lock in market access with key trading partners. Preferential trade agreements (PTAs) provide an alternative route by which post-colonial states can ensure privileged access to key export markets. PTAs are a broad class of agreements that include common markets, customs unions, and free trade areas, and their proliferation is one of the defining characteristics of the contemporary world economy (Mansfield and Milner 1999; Väyrynen 2003). Nearly every country in the world now participates in at least one PTA, although there is substantial cross-national variation, with some countries belonging to dozens of agreements while others belong to only one or two (Mansfield et al. 2007). Although they often contain explicit provisions allowing certain types of trade protection (for example, on a particular class of goods or sector of the economy), PTAs—like GATT/WTO membership—generally commit member states to more extensive trade liberalization. Moreover, many PTAs contain

institutional mechanisms (e.g., dispute settlement panels or arbitration procedures) to ensure that parties to the agreement do not overtly engage in protectionist policies that undermine the agreement (Smith 2000).

To be sure, PTAs are not a perfect substitute for GATT/WTO membership. They present different challenges and opportunities in negotiation and implementation. In particular, they frequently involve more extensive and protracted negotiations, though with a more limited number of partner states than GATT/WTO membership. Furthermore, they often involve deeper economic and non-economic cooperation, though each must be ratified separately in contrast to the coordinated process of GATT/WTO accession. Nevertheless, PTAs do offer countries a viable alternative mechanism by which to lock in permanent market access to key trading partners, without submitting themselves to the full set of requirements incumbent upon GATT/WTO members.

For post-colonial states, many of which are heavily dependent on trade with a few key partners, locking in market access through PTAs may be preferable to full GATT/WTO membership, at least in the short- to medium-term. Indeed, PTAs offer countries a way to liberalize trade with key trading partners, while not requiring them to grant market access on MFN terms to all GATT/WTO members. Moreover, because they are, by definition, violations of the principle of MFN, PTAs not only help a country to secure access to key export markets, but also create barriers to entry for third-party competitors. Finally, since post-colonial states negotiate their own terms of trade liberalization under PTAs (whereas GATT accession under Article XXVI:5(c) required them to accept the liberalization terms previously negotiated by their former colonial rulers), PTAs may enable newly independent states to obtain better trade liberalization deals with their key trading partners than they would via GATT/WTO accession.

For these reasons, PTAs present post-colonial governments with an alternative mechanism by which to lock in access to major export markets. To the extent that they have already negotiated and signed such agreements covering a substantial portion of their trade, post-colonial governments may, therefore, choose to delay GATT/WTO accession, even if accession does not impose new trade liberalization obligations (as under Article XXVI:5(c)).

H2: All else equal, states with higher levels of PTA trade coverage will delay GATT/WTO accession for a longer period following independence

Many post-colonial states that initially delayed GATT/WTO accession did feature very high levels of PTA coverage. Soon after Mali's independence in 1960, the Yaoundé Convention (and later the Lomé Convention) covered the majority of its trade, given its strong economic ties to the European Economic Community. Similarly, Dominica and St. Lucia each had PTA coverage in excess of 80% during their first decade of statehood in the 1980s, well above the sample average of 43%. All three of these states put off accession until just prior to the transition to the WTO.⁷

⁷ While our theoretical focus here is on *existing* PTAs, this logic should also apply to *prospective* PTAs. Indeed, there is anecdotal evidence that some post-colonial states postponed GATT accession until their key PTAs had come into force. For example, Zambia spent 18 years in *de facto* status (1964–1982), becoming a full contracting party only once the treaty creating the Common Market of Eastern and Southern Africa (COMESA) was signed in December 1981; similarly, the Maldives spent 18 years in *de facto* status (1965–1983), joining the GATT fully only once it had signed a PTA with India, one of its largest trading partners, in 1981. MTN.GNG/NG7/W/40/Rev.1, 3.

Some previous scholars have argued for a causal relationship in the opposite direction linking GATT/WTO membership and PTAs. For example, Mansfield and Reinhardt (2003) argue that several GATT/WTO-related factors—including growth in the institution's membership, the periodic nature of the regime's trade round negotiations, and defeats within the dispute settlement mechanism—create incentives for member-states to negotiate and sign new PTAs. Although we do not dispute these findings, we also believe that they do not invalidate our logic linking current PTA membership to accession delays, for two reasons. First, while problems arising from membership and participation in the GATT/WTO may lead countries to negotiate new PTAs, many post-colonial states already participated in a number of PTAs prior to joining the GATT/WTO, and it is reasonable to believe that these pre-existing bilateral and regional agreements shaped governments' choices about the timing of GATT/WTO accession. Thus, while it might be the case that GATT/WTO membership increases states' propensity to seek additional PTAs, this is an analytically separate question from the effect of existing PTAs on accession decisions. In addition, studies linking GATT/WTO membership to PTA formation generally focus on *reciprocal* PTAs, thereby excluding non-reciprocal agreements, in which advanced industrialized countries unilaterally grant preferential market access to developing countries. Given that many key PTAs in the sample of post-colonial countries are such non-reciprocal agreements (e.g., the European Union's Lomé and Cotonou agreements with the Asian, Caribbean, and Pacific countries), there is good reason to believe that the relationship between PTAs and GATT/WTO membership may be different in these cases. Accordingly, we include both reciprocal and non-reciprocal PTAs in our analysis below, since both reduce barriers to post-colonial states' exports into the markets of their former colonial powers.

Given that H1 and H2 point in opposite directions, we expect a conditional, interactive relationship between a country's economic ties to existing GATT/WTO members and its existing bilateral and regional trade agreements. In other words, the effect of GATT/WTO trade coverage on the timing of a post-colonial state's accession will depend on its level of PTA coverage. If PTA coverage is sufficiently high—thereby guaranteeing market access with a substantial share of a country's trading partners, even in the absence of GATT/WTO membership—a country may choose to delay Article XXVI:5(c) accession even in cases where its trade dependence with existing member-states is high.

4.3 Democracy and Credible Commitments

Finally, we expect the effect of GATT/WTO trade coverage on accession timing to be conditioned by a third variable: a state's regime type or level of democracy. Within the broader international political economy literature, there is now substantial evidence that the structure of domestic political institutions strongly influences a state's propensity to join international organizations. Democratic, autocratic, and transitioning regimes have been found to act differently in terms of joining international organizations and pursuing international cooperation. For example, recent studies have found evidence that democracies are more likely to join PTAs, since they value the ability to signal information to voters about trade

behavior and rely on the potential audience costs created to stay in office (Mansfield et al. 2002). In the GATT/WTO specifically, evidence suggests that democracies tend to advance more quickly through the accession process from initial application to joining the institution (Yu and Wong 2008). Other scholars argue that the process of democratization, rather than the level of democracy itself, is a more crucial determinant of states' behavior in international cooperation. In this view, newly established democracies are particularly likely to commit themselves using international regimes, since they frequently lack stability and security against threats from non-democratic forces (Moravcsik 2000). Several recent studies in this vein suggest that democratizing leaders use international institutions as a credible commitment mechanism to lock in further liberal economic reforms, to more firmly establish democratic institutions, and/or to signal these intentions to the international community (Pevehouse 2005; Mansfield and Pevehouse 2006; Hafner-Burton et al. 2009).

In the context of post-colonial states and GATT/WTO accession, such arguments suggest that states with more democratic regimes will be more likely to join the GATT/WTO at a given point in time, either as a way to make credible commitments overseas or in order to lock in economic and political reforms against domestic opposition.

H3: All else equal, countries governed by more democratic regimes will join the GATT/WTO more quickly following independence

Many of the rapid joiners in the sample of post-colonial states were democratic at the time of independence. Nigeria in 1960 and Jamaica in 1962 had democratic institutions at the beginning of statehood (Polity scores of 8 and 10, respectively), and joined the GATT/WTO within a year. Others followed a path similar to Mali, which remained formally outside the institution for decades, under an autocratic regime, before joining in 1993 after the establishment of a democratic constitution in 1992.

Once again, however, we expect this effect of a country's domestic political institutions to be a mediating factor conditioning the influence of trade ties with existing GATT/WTO member states. Consequently, we expect there to be an interactive relationship between GATT/WTO coverage and regime type. Of course, this second interactive hypothesis also necessarily implies a three-way interaction between GATT/WTO coverage, PTA coverage, and regime type (Brambor et al. 2006, Braumoeller 2004). Therefore, while we begin our empirical analysis below with independent tests of our three hypotheses, our primary interest is in the multiplicative interaction between these three key variables influencing the timing.

5 Empirical Analysis

In order to test our argument, as well as the potential alternatives discussed in the previous section, we analyze an original dataset of 61 post-colonial states from 1951 to 2004. Subject to data limitations, this is the set of countries which, having

achieved independence from a GATT member-state between 1949 and 1994, were eligible to accede under Article XXVI:5(c).⁸

Since we are concerned primarily with the duration of a post-colonial state's time outside of the GATT, we employ a hazard (survival) model to analyze our data. Specifically, we adopt the Cox proportional hazard model. In contrast to parametric duration models (e.g., the exponential or Weibull), the Cox model is semi-parametric: it requires no *ex ante* assumption about the shape of the baseline hazard function in our sample. Rather, the Cox model starts with an unspecified baseline hazard, which is affected by the exponentiated values of the covariates in the data:

$$h(t/x) = h_0(t)e^{(x\beta)}$$

This model is advantageous for our purposes, since we do not have strong priors on the exact shape of the survival function, though we expect the hazard rate—the risk of joining the GATT/WTO in a given year—to be increasing over time. As with all duration models, however, the Cox model makes a proportional hazards assumption; that is, it assumes that the effects of the covariates are proportional and constant, regardless of when in the process (i.e., in which year) the values change (Box-Steffensmeier and Jones 2004). In our model, countries enter the dataset in the year of their independence and leave in the year in which they join the GATT/WTO (or at the end of the observation period, in 2004). Thus, failure is a dummy variable indicating GATT/WTO accession and the temporal unit of analysis is the number of years since independence.

5.1 Independent Variables

We test three key explanatory variables linked to the hypotheses outlined in the previous section. First, we calculate *GATT/WTO coverage*, the GATT/WTO coverage ratio, or percentage of a country's total trade that is with current member states of the GATT/WTO. Our expectation is that the coefficient on *GATT/WTO coverage* will be positive—that is, it will increase the hazard or risk of a country joining the GATT/WTO at a given point in time. The underlying data on dyadic trade used to calculate this variable is drawn from the Correlates of War (COW) Trade dataset (Barbieri et al. 2008). We use five-year, lagged moving averages of GATT/WTO coverage, in order to mitigate concerns about endogeneity and to avoid the risk that year-to-year fluctuations in trade patterns, rather than systematic trends, are driving our results.⁹ In our sample, *GATT/WTO coverage* ranges from 0 to 100%, with a mean of 86.7%.

Second, we include *PTA coverage*, which measures the extent of a country's preferential trade agreement commitments. Similar to *GATT/WTO coverage*, this variable is the five-year, lagged moving average of a country's PTA coverage ratio,

⁸ Countries and years included in the sample, as well as summary statistics for the variables used in our analysis, are available in the online Appendix on this journal's webpage.

⁹ Our results are substantively identical using three-year moving averages and one-year lagged values. Results available on request.

the percent of its total trade covered by PTAs.¹⁰ In contrast to the GATT/WTO variable, our expectation is that the coefficient on *PTA coverage* will be negative, indicating a reduction in the hazard rate. The logic is straightforward, as discussed previously: PTAs offer countries an alternative way to ensure market access with key trading partners, even in the absence of GATT/WTO accession. All else equal, countries for whom a larger share of trade is already covered under existing bilateral or regional PTAs should be less likely to accede to the GATT/WTO at a given point in time. In our sample, *PTA coverage* ranges from 0 to 91.8%, with a mean of 28.4%.

Third, we include *Polity*, the widely used institutional measure of regime type, as our measure of domestic political institutions (Marshall et al. 2009). Specifically, the variable used is the “POLITY2” indicator, which provides a continuous measure of regime type, ranging from full autocracy (−10) to full democracy (10).¹¹ As with *GATT/WTO coverage* and *PTA coverage*, we use five-year, lagged moving averages of *Polity*.¹² In our sample, 549 country-years have *Polity* scores less than −5, the standard convention defining an autocracy, while 151 country-years have scores greater than 5, the level generally acknowledged to be the minimum for a democratic regime (Fearon and Laitin 2003; Vreeland 2008). The remaining 171 observations are “anocracies”—intermediate regimes scoring between −5 and 5 on the *Polity* scale (Vreeland 2008). All else equal, we expect higher levels of *Polity* to be associated with an increased probability of GATT/WTO accession.

5.2 Control Variables

In addition to these independent variables of choice, we include a series of controls for potential alternative explanations of variation in the timing of post-colonial states’ GATT/WTO accession. First, we include *GATT/WTO regional coverage*, the five-year, lagged moving average of GATT/WTO trade coverage for each country’s region as a whole. A growing body of research suggests that membership in international institutions follows a pattern of regional diffusion (Simmons and Elkins 2004; Elkins et al. 2006). This work has identified several different causal mechanisms through which diffusion might operate, including competition for capital or market access, economic and political connections, and cultural/religious affinity. Alternatively, regional diffusion may occur as the positive (or negative) experiences of early joiners convey policy relevant

¹⁰ As this variable measures only existing PTA agreements, rather than prospective PTAs currently under negotiation, it may actually underestimate the importance of this causal mechanism. If anything, this bias against finding a result strengthens our confidence in the significance of this variable in the analysis below. We thank Jon Pevehouse for sharing his PTA membership data (Mansfield et al. 2007).

¹¹ Unfortunately, data limitations on *Polity* reduce our sample to 61 countries and 891 observations, since this variable is unavailable for some countries (notably, many Caribbean islands) in our dataset, and because some country-years enter as missing values due to their coding as years of transition (−88), interregnum (−77), or regime interruption (−66) (Marshall et al. 2009). To address this problem, we have replicated our analysis using an alternative, binary measure of democracy from the *Democracy and Dictatorship Revisited* dataset (Cheibub et al. 2009), which is available for a broader sample of 73 countries (1110 observations). Since our results are substantively identical using this alternative measure (available on request), we report only the *Polity* results here.

¹² Once again, our results are not sensitive to alternative specifications of this variable (e.g., three-year moving averages and one-year lagged values). We employ the five-year averages here in order to capture both the level and trend of democracy/autocracy in a single variable.

information about the effects of GATT/WTO membership to countries in similar economic and geographical circumstances. Including *GATT/WTO regional coverage* in our models controls for the possibility that post-colonial states' accession timing is driven by such patterns of regional diffusion. This variable, which is constructed in a similar manner to the country-specific GATT/WTO and PTA variables discussed earlier, employs the Correlates of War (COW) trade data and regional classifications (East/South Asia, Middle East/North Africa, Latin America/Caribbean, Europe/Central Asia, and Sub-Saharan Africa).

We also control for the possibility that the timing of a country's GATT/WTO accession is influenced by—if not a component of—the broader process of economic liberalization and international financial integration that many developing countries have undergone over the last fifty years, as they have dismantled policies of import substitution and/or reoriented their trade and financial policies toward greater openness.¹³ We introduce two variables to measure the possibility that such general trends toward global economic integration influence the specific timing of GATT/WTO accession. First, we introduce *Trade openness*, measuring exports plus imports as a percentage of GDP. All else equal, we expect that more trade-dependent states should be more likely to seek early GATT/WTO membership. Including *Trade openness* also ensures that *GATT/WTO coverage* and *PTA coverage* are not simply capturing increases in the importance of trade for a given country. Second, we include *IMF program*, a dummy variable that takes the value of “1” if a country participated in an IMF lending program at any point in the last five years.¹⁴ Since IMF conditionality over the last five decades has almost always involved some degree of structural adjustment and reorientation toward financial openness (Chwieroth 2010), we believe this is a reasonable, albeit rough, proxy that allows us to control for levels of financial openness and international integration across our country/time sample. All else equal, we would expect that countries that have recently participated in an IMF program will be more likely to join the multilateral trade regime at a given point in time.

Next, we also control for country size and level of development, both of which may influence the timing of post-colonial GATT/WTO accession. Therefore, we include both *GDP per capita*, the logged value of real GDP per capita (constant 2000 dollars), and *GDP*, the logged value of real GDP. We do not have strong priors on the direction of influence of these variables on accession timing, however. On the one hand, larger, more developed states might be expected to join the GATT/WTO sooner, either because they possess greater bureaucratic capacity to implement GATT/WTO requirements and navigate the regime's dispute settlement process, or because they stand to gain more from future trade liberalization and a seat at the institutional table. On the other hand, we might observe the reverse pattern. If larger, richer countries learn from experience that

¹³ Ideally, we would prefer to incorporate one or more of the well-known policy- or flow-based indices of financial liberalization as measures of a country's general degree of integration into the global financial system (e.g., Chinn & Ito 2008; Quinn and Toyoda 2007; Lane and Milesi-Ferretti 2007). Unfortunately, these existing data sources measuring capital account openness do not cover large portions of our country sample, nor do they extend back in time beyond the early 1970s.

¹⁴ Data are taken from Copelovitch (2010) and Reinhart (2010).

remaining outside the multilateral trade regime has been a contributing factor to their growth and development, they may delay accession longer than smaller, poorer countries. Each of these variables enters the models as a five-year, lagged moving average, in order to capture both levels and trends in the data. Data on GDP are taken from the World Bank's *World Development Indicators*, while data on GDP per capita are drawn from the Penn World Table (Heston et al. 2009).

We also control for the possibility that post-colonial GATT/WTO accession is driven by geopolitical or foreign policy ties, rather than solely by economic or political economy factors. Given our country sample, it is reasonable to believe that historical ties or foreign policy affinities between a country and its former colonial power may shape the timing of its accession to the GATT/WTO. To capture such influence, we include dummies for countries that were previously British, French, Belgian, and Portuguese colonies. In our sample of 61 countries, 20 countries were former British colonies (Antigua and Barbuda, Bahamas, Bahrain, Botswana, Cyprus, Dominica, Fiji, Grenada, Israel, Lesotho, Libya, Qatar, Seychelles, Solomon Islands, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sudan, Swaziland, United Arab Emirates, Zambia), while 23 were former French colonies (Algeria, Benin, Burkina Faso, Cambodia, Cameroon, Chad, Comoros, Republic of the Congo, Djibouti, Gabon, Guinea, Ivory Coast, Laos, Madagascar, Mali, Mauritania, Morocco, Niger, Senegal, Togo, Tunisia, Vanuatu, and Vietnam), four were former Portuguese colonies (Cape Verde, Guinea-Bissau, Mozambique, Sao Tome and Principe), and two were former Belgian colonies (Burundi, Rwanda). We do not include dummies for other colonial relationships, since these are single cases (Netherlands and Suriname; Malaysia and Singapore; Italy and Somalia; Australia and Papua New Guinea) or drop from the sample due to collinearity (US and Palau/Marshall Islands).¹⁵ Data are taken from the Issue Correlates of War Project's *Colonial History* dataset (Hensel and McLaughlin Mitchell 2006).

Finally, we include dummy variables for each of the major trade rounds under the GATT, beginning with the Kennedy Round in 1964, along with a dummy for the WTO era (1995–2004). These variables attempt to account for the fact that, beginning with the Kennedy Round, trade liberalization under the GATT/WTO has progressively incorporated a broader and more extensive range of protectionist policies over time (e.g., antidumping, non-tariff barriers, services, intellectual property). Thus, while Article XXVI:5(c) did not immediately require post-colonial states to implement new trade liberalization measures as part of the accession process, subsequent membership in the regime and participation in new trade rounds could very well commit these states to future liberalization. We expect, therefore, that the baseline degree of attractiveness of accession for all post-colonial states will depend on the particular era in which accession is being considered—and, more specifically, on the range and type of liberalization measures being considered in the current trade round.

¹⁵ Because colonial relationships heavily cluster regionally (e.g., 70% of British colonies and 74% of French colonies were in the Middle East and Africa), these dummy variables may also be capturing cross-regional differences in the likelihood of rapid GATT/WTO accession. We omit regional dummies from our analysis for this reason, and because they are highly collinear with the colonial indicators.

5.3 Results

Table 2 presents the main results of the statistical analysis. It contains four models, with the results showing coefficients for each variable, rather than hazard ratios. Model 1 is a baseline specification including all of the aforementioned variables but no interaction terms. Although this is not our theoretically preferred specification, we include this model in order to assess the standalone effects of each of our core explanatory variables. Models 2 and 3 incorporate two-way interaction terms testing the conditional effect of *GATT/WTO coverage* by *PTA coverage* and *Polity*, respectively. Once again, while these specifications do not fully capture our argument, we include them to gauge the extent to which the effect of *GATT/WTO coverage* is conditioned by each of the other key explanatory variables. Finally, in Model 4, we test our preferred specification, which incorporates the full three-way interaction between *GATT/WTO coverage*, *PTA coverage*, and *Polity*. In each of these models, we employ the Efron methodology for breaking ties in the dataset that exist when countries join the GATT in the same year.¹⁶ These specifications also employ robust standard errors clustered on country, to account for heteroskedasticity in the dataset.

Overall, the results provide clear and robust support for our argument and its hypotheses. Moreover, the results strongly suggest that the interaction between the key variables outlined above—rather than their independent effects—ultimately determines the timing of post-colonial states' GATT/WTO accession.

We begin our analysis with a baseline specification (Model 1), in which each of our three key explanatory variables enters independently. In Model 1, each of these variables is significant at the 95% confidence level or greater in the expected direction. The coefficient on *GATT/WTO coverage* is positive, indicating an increase in the hazard rate. In terms of hazard ratios, a one percent increase in *GATT/WTO coverage* increases the probability of joining the GATT/WTO at a given point in time by 2.9%. In contrast, the coefficient on *PTA coverage* is negative, indicating that higher levels of PTA trade coverage reduce the probability of joining the multilateral trade regime. Specifically, the hazard ratio for *PTA coverage* is 0.983, indicating that a one percent increase in *PTA coverage* reduces the probability of joining the GATT/WTO by 1.7%. Finally, *Polity* is positive and significant in Model 1 at the 99% confidence level. In terms of hazard ratios, a one-unit increase in *Polity* increases the probability of joining the GATT/WTO by 8.4%. Thus, each of our key explanatory variables independently has significant and substantive effects on the timing of accession by post-colonial states.

In addition to these variables, several of the controls are also significant in Model 1, and these results broadly hold across all specifications in Table 2. First, *Trade openness* is significant and positive in all four models; thus, as expected, higher

¹⁶ Years in this sense are equal to number of years from independence. Therefore, a tie can exist when two countries become independent in different years but both join in the third year of their independence. There are a number of ways to calculate the ordering of failures in the case of tied data, of which the Efron and exact partial likelihood methods are generally preferred to the Breslow method (Box-Steffensmeier and Jones 2004). The Efron method takes account of how the risk set changes depending on the sequencing of tied events; it adjusts the risk sets using probability weights (Efron 1977).

Table 2 Regression results (Cox proportional hazards model)

Model	1	2	3	4
GATT/WTO coverage	0.0289** [0.0134]	0.0608*** [0.0217]	0.0396*** [0.0138]	0.0779*** [0.0287]
PTA coverage	-0.0176*** [0.0084]	0.0762* [0.0401]	-0.0194** [0.0082]	0.0740 [0.0940]
Polity	0.0805*** [0.0254]	0.0874*** [0.0270]	-0.2803* [0.1540]	-0.4419 [0.2891]
GATT/WTO regional coverage	0.0459 [0.0317]	0.0458 [0.0324]	0.0544 [0.0333]	0.0380 [0.0316]
Trade openness	0.0093*** [0.0033]	0.0086*** [0.0032]	0.0084** [0.0034]	0.0073** [0.0031]
IMF program (last 5 years)	0.5818* [0.3381]	0.6096* [0.3475]	0.5558* [0.3366]	0.6513* [0.3567]
Real GDP (log)	0.1642 [0.1603]	0.1537 [0.1598]	0.1872 [0.1588]	0.1819 [0.1620]
Real GDP per capita (log)	-0.3174 [0.2370]	-0.2986 [0.2595]	-0.2959 [0.2519]	-0.2208 [0.2860]
British colony	0.7585 [0.4939]	0.5468 [0.5149]	0.7088 [0.4887]	0.4165 [0.5593]
French colony	0.1786* [0.6592]	1.0341* [0.6178]	1.1187* [0.6136]	1.0969* [0.6185]
Portuguese colony	0.5631 [0.8075]	0.4905 [0.8098]	0.5307 [0.8216]	0.5667 [0.7793]
Belgian colony	2.4382*** [1.0485]	2.2241** [1.0606]	2.3252** [1.0435]	2.2582** [1.1312]
Kennedy round (1964–67)	-0.0302 [0.8697]	-0.0914 [0.8987]	-0.0715 [0.9136]	-0.0690 [0.9792]
Tokyo round (1973–79)	1.7520** [0.8042]	-1.6972** [0.8099]	-1.7402** [0.8039]	-1.7521** [0.8134]
Uruguay round (1986–94)	1.2995*** [0.4224]	1.4674*** [0.4353]	1.3368*** [0.4330]	1.6078*** [0.4162]
WTO era (1995–2004)	-0.1684 [0.8467]	0.1211 [0.8994]	-0.2549 [0.9514]	0.6718 [0.8027]
GATT/WTO coverage*PTA coverage		-0.0011** [0.0005]		-0.0011 [0.0010]
GATT/WTO coverage*Polity			0.0040** [0.0018]	0.0064* [0.0034]
PTA coverage*Polity				0.0058 [0.0122]
GATT/WTO coverage*PTA coverage*Polity				-0.0001 [0.0001]
Observations	891	891	891	891
Log-pseudolikelihood	-140.23	-138.65	-139.03	-136.23
Number of countries	61	61	61	61
Number of failures	50	50	50	50

Failure = accession to GATT/WTO at time t

Time = years since independence

Robust standard errors in brackets

* significant at 10%; ** significant at 5%; *** significant at 1%

levels of trade dependence hastened the GATT/WTO accession of post-colonial states. The substantive impact of this variable is limited, however: the hazard ratio of 1.009 indicates that a one percent increase in trade as a share of GDP increases the probability of accession by only 0.9%. Likewise, *IMF program* is significant (albeit at the 90% confidence level) in all four models. As noted above, we interpret this result as evidence that countries tended to join the GATT/WTO more quickly after experiencing financial crises and/or moving toward a greater degree of economic liberalization as a result of IMF-led structural adjustment. The substantive impact of *IMF program* is larger than *Trade openness*: participation in a Fund program in the last five years increases the probability of accession by 78.9%. Thus, while the analysis strongly supports our argument and hypotheses, it suggests that post-colonial states' broader orientation toward the world economy also influenced their decisions over GATT/WTO accession.

The models also provide limited evidence that colonial heritage matters: the French colony dummy is weakly positive and significant in all four models, while the Belgian colony dummy is positive and significant across all four specifications. Given the relatively weak result on the French dummy, along with the fact that only two countries (Burundi, Rwanda) in our sample were Belgian colonies, we hesitate to draw broad conclusions from these findings. Finally, the results also suggest interesting temporal patterns in the data. The Tokyo round dummy is negative and significant throughout Table 2, while the Uruguay round dummy is positive and significant in all models. Given that the omitted time dummy is the pre-Kennedy Round era, we interpret these results as indicators that post-colonial states were less likely to accede to the GATT in the 1970s than in the early years of the institution, but more likely to join in the years immediately preceding the creation of the WTO. On the other hand, the remaining controls perform poorly across our models. Most notably, there is no evidence that post-colonial states' GATT/WTO accession timing followed a process of regional diffusion: *GATT/WTO regional coverage* is insignificant in all four models, suggesting that diffusion effects do not play a role in shaping countries' accession decisions. We also find no evidence that basic country characteristics (*GDP*, *GDP per capita*) influence the timing of accession.

5.4 Interactive Models

Although the baseline specification provides strong support for each of our hypotheses independently, our expectation is that the effect of *GATT/WTO coverage* on the timing of accession is conditional on both *PTA coverage* and *Polity*. To explore this possibility, we first turn to Models 2 and 3, which present the results of the two-way interactive models between *GATT/WTO coverage* and the other two variables. In multiplicative interactive models, one cannot simply interpret the individual regression coefficients on the interaction terms and their components (Braumoeller 2004; Brambor et al. 2006). Rather, as Figs. 2 and 3 illustrate, the coefficients on *GATT/WTO coverage* must be assessed at different values of the modifying variable. Consequently, these charts graph estimates of the marginal effect of *GATT/WTO coverage*, along with 95% confidence intervals, as the relevant variable (*PTA coverage*, *Polity*) increases from its minimum to maximum values.

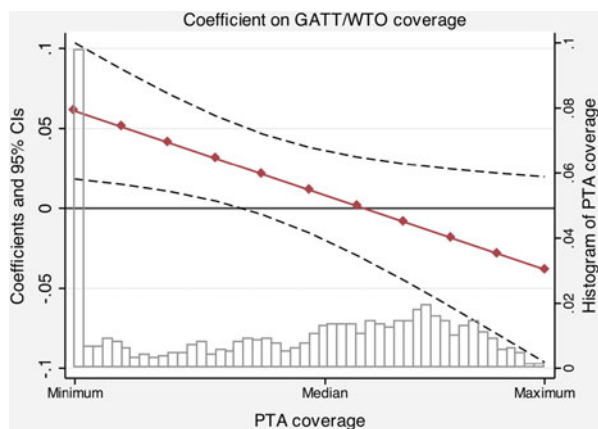


Fig. 2 Coefficient on *GATT/WTO coverage* at different values of *PTA coverage*

These figures shed further light on the relationship between our key explanatory variables. Figure 2 illustrates clearly that the positive effect of *GATT/WTO coverage* on the probability of accession is conditional on *PTA coverage*. Indeed, this effect disappears when *PTA coverage* exceeds approximately 30%, roughly the mean level in our sample. This suggests that trade dependence with existing *GATT/WTO* members only increases the probability of accession if a country has not already locked in market access with some or most of its key trading partners through bilateral or regional PTAs. Likewise Fig. 3 clearly indicates that the effect of *GATT/WTO coverage* is conditional on regime type: the variable only has a significant and substantive effect on the probability of accession in countries where *Polity* exceeds -5 . Above this threshold, the coefficient on *GATT/WTO coverage* demonstrates an increasingly positive, significant effect at higher levels of democracy. This result suggests that trade ties with existing *GATT/WTO* member states are an important determinant of accession timing for both democracies and anocracies, while they have no significant effect on the accession decisions of autocratic regimes.¹⁷

Thus, in line with our argument, the effect of *GATT/WTO coverage* on accession timing is conditional on both *PTA coverage* and *Polity*.¹⁸ By necessity, however, these significant results in each of the two-way interactive specifications imply a full, three-way interaction between our key explanatory variables (Brambor et al. 2006). Therefore, in Model 4, we analyze this specification, which is our preferred model and a complete test of our theoretical framework and its predictions. Figure 4 presents, in graphical form, the results of this model. It graphs the marginal effect of

¹⁷ This result also suggests the need to explore more fine-grained classifications of domestic regime type/institutions. In order to ascertain which components of regime type matter most in shaping accession decisions. We leave this for future research, given the length and scope of the current analysis.

¹⁸ In order to ensure that we have captured the full set of conditional relationships in our models, we also analyzed specifications incorporating two-way interactions between *GATT/WTO coverage* and both *IMF program* and *GATT/WTO regional coverage*. Neither of these specifications, however, yielded significant results (results available on request). Thus, there is no evidence that *GATT/WTO regional coverage* plays a role in shaping states' preferences over the timing of *GATT/WTO* accession. Moreover, the effect of *IMF programs* on accession timing is not conditional on levels of *GATT/WTO coverage*.

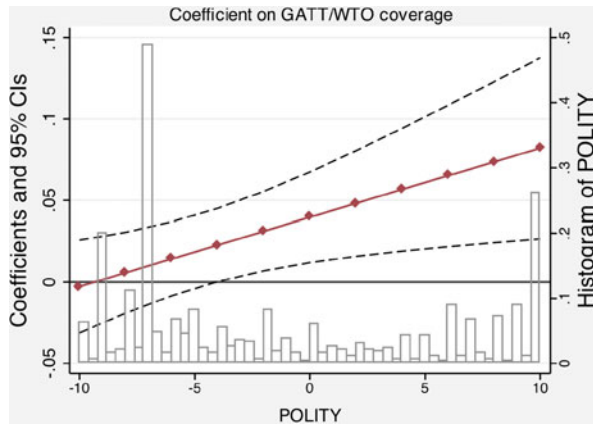


Fig. 3 Coefficient on *GATT/WTO coverage* at different values of *Polity*

GATT/WTO coverage by *PTA coverage* at three different levels of *Polity*: complete autocracy (*Polity*=-10), the mean level of anocracy (*Polity*=0), and full democracy (*Polity*=10).

This three-way interaction sheds further light on the specific conditions under which higher levels of *GATT/WTO coverage* increase the probability of accession by post-colonial states under Article XXVI:5(c). Specifically, the chart shows that higher levels of *GATT/WTO coverage* do increase the probability of accession, but only when a post-colonial state lacks extensive PTA ties (i.e., when *PTA coverage* is below ~30%) and when the country is not an autocracy. Moreover, Fig. 4 shows that the magnitude of *GATT/WTO coverage*, while significant for both anocracies (*Polity*=0) and democracies (*Polity*=10) when *PTA coverage* is low, is twice as large in the case of full democracy. Thus, our analysis provides strong support for the three-way interactive model: trade ties with existing member-states are a key determinant of *GATT/WTO accession timing* for post-colonial states, but only in more democratic countries that have not already locked in market access through more extensive PTA commitments.

To illustrate these effects substantively, we calculate the predicted probability of accession at specific values of our key covariates.¹⁹ Since our results show a significant effect of *GATT/WTO coverage* only where *PTA coverage* is low and democracy is high, we fix *PTA coverage* at 10% (within the low range) and *Polity* at 10. For such a state, the predicted probability of accession at a low level of *GATT/WTO coverage* (50%) is only 1.4%. At *GATT/WTO coverage* equal to 75%, this probability increases to 6.2%. Finally, when *GATT/WTO coverage* equals 100%, the predicted probability of accession at these values of the key covariates increases to 35.9%. Thus, more extensive trade ties with existing GATT/WTO members at low levels of PTA coverage and high levels of democracy substantially increase the likelihood that a post-colonial state will pursue accession at a given point in time.

¹⁹ These calculations draw on the results of the logit analysis discussed below in the robustness checks, which yields substantively identical results to the hazard models used in Table 2. Utilizing the results of the logit specification enables us to take advantage of the Stata add-on software, CLARIFY, in order to calculate predicted probabilities at specific values of our covariates (King et al. 2003).

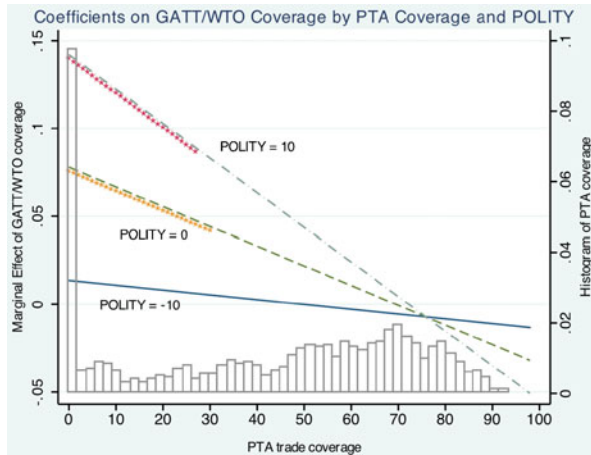


Fig. 4 Coefficients on GATT/WTO coverage by PTA coverage and Polity. Asterisks indicate significance at 95% confidence

5.5 Robustness Checks

Before concluding our empirical analysis, we conduct a series of robustness checks to ensure that our results are not sensitive to model specification, to the inclusion or exclusion of certain categories of post-colonial states, or to our coding of regime type. We find that our results are broadly robust to estimation technique: our findings remain substantively identical across several alternative econometric approaches, including an exact partial likelihood Cox specification, a Weibull (parametric) hazard model, and an event history logit model. Similarly, a series of subsample analyses suggest that our findings do not depend on the inclusion/exclusion of very small islands or “microstates” in the Caribbean and Pacific, or of the successor states of European countries (Czechoslovakia, Yugoslavia) that had previously been part of the GATT. Our findings also do not vary substantively if we consider only the GATT era (pre-1995), or if we include only countries that gained independence prior to 1970. Including a dummy variable to control for whether or not a post-colonial state had formally embraced non-member participant status prior to its accession also does not alter our empirical findings (Goldstein et al. 2007). Finally, we find similar support for all models in a broader sample of 73 countries using an alternative measure of regime type, the dichotomous democracy/autocracy indicator from the *Democracy and Dictatorship Revisited* dataset (Cheibub et al. 2009). This result alleviates our concerns that our results are sensitive to the omission of particular countries and years due to the limitations and coding strategies of the *Polity* dataset.²⁰ In short, we find no evidence that our empirical findings are the product of specific data, sampling, or estimation techniques choices. Rather, our substantive results hold consistently across a broad range of alternative specifications.

²⁰ Results of all of these robustness checks are available on request. We omit the tables for reasons of space.

6 Conclusion

What explains the substantial variation in the timing of post-colonial states' accession to the GATT/WTO over the last fifty years? We argue that three key variables explain variation in GATT/WTO accession timing by post-colonial states: a country's trade ties with existing member-states; the degree to which its trade is already covered by existing preferential trade agreements; and the country's regime type/level of democracy. Furthermore, we argue that the effects of these variables are conditional and interactive: higher levels of GATT/WTO coverage increase the likelihood of rapid accession under Article XXVI:5(c), but only when a post-colonial state has not already locked in ties with key trading partners through bilateral or regional PTAs *and* when the country has achieved a higher level of democracy.

Although we have focused exclusively on post-colonial states in this paper, we believe this explanation for the timing of GATT/WTO accession should also extend to existing WTO non-members and future independent states. The key variables on which we focus (trade integration, PTAs, domestic institutions) are not unique to post-colonial states, even if the Article XXVI:5(c) option is no longer available to new countries entering the world economy today. Consequently, given the continued proliferation of bilateral and regional trade agreements, as well as the ongoing process of democratization around the world, our findings are quite likely to be of relevance in the future. Indeed, one can imagine that—assuming the Doha Round negotiations continue to flounder and progress on further trade liberalization under the WTO stagnates—non-WTO members and newly independent/democratic states may pursue bilateral or regional trade integration as an outside option, with potentially detrimental consequences for the rapid and full extension of WTO membership to the remaining non-member states.

More broadly, this paper and its findings speak to two important questions about international political economy and international institutions. First, they address the policy question of whether PTAs are building blocks or stumbling blocks on the way toward global trade liberalization under the auspices of the WTO (Bhagwati 1991; Limão 2006). In particular, our finding that more extensive PTA membership has a significant negative effect on the speed of GATT/WTO accession lends credence to the stumbling block viewpoint, and suggests that the increasingly dense and interlocking web of PTAs globally may weaken the prospects for further multilateral trade liberalization in the years ahead. Our results also speak to the related debate over whether the effects of these institutions on trade between countries are hierarchical or additive (Subramanian and Wei 2007; Goldstein et al. 2007). In general, our results support the hierarchical view that PTA membership is primary and that GATT/WTO membership may not have significant additional effects on trade when two countries are already linked by a PTA. More specifically, our finding that the effect of GATT/WTO trade coverage on accession is conditional on low PTA coverage suggests that post-colonial governments viewed PTA commitments as a viable alternative for ensuring market access with key trading partners. Nonetheless, our results are not entirely incompatible with the additive perspective; indeed, the fact that most post-colonial states did eventually pursue GATT/WTO membership—

despite already having extensive PTA networks in place in many cases—suggests an expectation that participation in the multilateral trade regime would provide additional benefits.

Second, our results also shed light more generally on the determinants of states' decisions to join international organizations (IOs) and institutions. In particular, they highlight the importance of accounting for both states' pre-existing bilateral and multilateral institutional commitments (such as PTA membership) and the structure of their domestic institutions (such as democracy/autocracy) when seeking to explain the timing and incidence of accession to IOs. These factors are quite likely to influence states' behavior beyond the realm of trade. For example, we might see similar patterns of treaty/IO accession emerging with respect to climate change, if and when more extensive multilateral agreements emerge. If countries believe that they can protect their interests and achieve their goals through narrower bilateral or regional agreements, they might forego participation in a future UN- or WTO-sponsored environmental regime. Similarly, future prospects for a global treaty governing foreign direct investment are increasingly uncertain, given the proliferation of bilateral investment treaties (BITs) in recent years. That said, whether or not bilateral/regional agreements hinder or facilitate broader multilateral cooperation in these areas will also depend critically on the regime type of key countries at the table in a given issue area. Ultimately, the structure of both domestic and international institutions is quite likely to shape whether or not states pursue gains from multilateral cooperation across a wide range of issues in the years ahead.

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