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CHAPTER 8
The World Trade Organization

Geneva is a beautiful city and walking alongside Lake Geneva is an activity enjoyed by many of its residents and tourists. If you begin downtown and proceed along the northwestern shore of Lake Geneva, you will have a grand view of the beautiful water jet in the middle of the lake. *Quai du Mont Blanc* turns into *Quai Wilson*, and you will then proceed by a number of statues and pleasant, open parks. Next, you will enter into the wooded *Parc Mon Repos* and proceed by the Graduate Institute of International and Development Studies. Finally, you will walk between a large building with both old and new architectural features and the lake. If you turn to face this building, you will be looking at the **World Trade Organization** (WTO), an organization lauded and vilified with equal intensity by various groups with concerns about trade policy.

While many individuals and groups have strong opinions about the WTO, most know very little about it. This chapter will make sure you understand key aspects of this important institution of world trade. To develop your understanding of the WTO, we will first take up its predecessor, the **General Agreement on Tariffs and Trade** (GATT) and introduce the principles it established for the conduct of international trade in goods. Next, we will turn to the WTO itself, as established by the 1994 Marrakesh Agreement. Here we will cover the main provisions of the Marrakesh Agreement in the areas of goods, services, intellectual property, and dispute settlement. We will take up the failed Doha Round of **multilateral trade negotiations**, the issue of China's WTO membership, and trade and the environment within the WTO.

Nobel Laureate Douglass North (1990) defined institutions as "humanly devised constraints that shape human interaction" (p. 3), a less formal definition being "the rules of the game." The WTO is the central institution of global trade and sets out the rules of the trading game.[1] These rules have force as public international law, and the study of the WTO takes place on the boundaries of economics, political science, and law. This, in turn, involves a subtle change in vocabulary that may appear odd at first. Trust that the terms we introduce here are widely utilized in the trade policy field.

[1] To be more precise, the WTO is both a global *institution* and a global *organization*. On the latter concept, see Debebe (2017).

The General Agreement on Tariffs and Trade

During World War II, the United States and Britain began developing the outlines of a set of post-war, economic institutions. The specifics of the plan were negotiated in 1944 at the Bretton Woods Conference. This conference set up the International Bank for Reconstruction and Development (what subsequently expanded into the World Bank Group) and the International Monetary Fund discussed in Chapter 19. The conference also noted, however, that there should be a third international organization in the realm of international trade.

In 1945, the United States attempted to launch the idea of an International Trade Organization (ITO), and this proposal was taken up in a 1946 meeting in London to write the ITO charter. In early 1947, a draft General Agreement on Tariffs and Trade (GATT) based on part of the draft ITO charter was prepared at a meeting in the United States. This led to a subsequent meeting that year in Geneva where 23 countries signed the Final Act of the GATT. The ITO charter itself was finalized at a 1948 meeting of 56 countries in Havana Cuba, and this became known as the Havana Charter.[2] However, in 1950, the US government announced that it would not seek US Congressional ratification of the Havana Charter, effectively terminating the ITO plan. Consequently, the institutional vehicle for post-war trade became the GATT itself.[3]

The GATT preamble encouraged member countries to consider "reciprocal and mutually advantageous arrangements directed to the substantial reduction of tariffs and other barriers to trade and to the elimination of discriminatory treatment in international commerce." This exhortation had some effect. Between 1946 and 1994, the GATT provided a framework for a number of "rounds" of multilateral trade negotiations (MTNs). These are listed in Table 8.1 along with the failed, WTO-sponsored Doha Round. The GATT-sponsored rounds reduced tariffs among member countries in many (but not all) sectors. As a result, the weighted average tariff on manufactured products imposed by high-income countries (HICs) fell from approximately 20 percent to approximately 5 percent.[4]

Despite these successes, the Geneva-based GATT Secretariat could not always effectively enforce negotiated agreements without the legal standing of the ITO. This and other "constitutional defects" (Jackson, 1994) limited its effectiveness. These limitations were finally addressed in 1994 with the end of the Uruguay Round negotiations in a signing ceremony in Marrakesh, Morocco. The **Marrakesh Agreement** provided for the creation of the World Trade Organization (WTO), which completed the vision of the ITO. This section of the chapter will focus on the GATT, while the following sections focus on the WTO.

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[2] The Havana Charter was substantially more comprehensive than the GATT in that it addressed restrictive business practices, international investment, and services.

[3] The decision not to seek ratification was in response to pressures from isolationist members of the US Congress. Jackson (1990) noted that "Since the ITO did not come into being, a major gap was left in the fabric intended for post-World War II international economic institutions" (p. 15).

[4] See Hoekman and Kostecki (2009), p. 138 and Bown and Irwin (2015).

The GATT only covers trade in *goods*.[5] Its most important principle is that of **nondiscrimination**. As illustrated in Figure 8.1, nondiscrimination has two important sub-principles, namely **most-favored-nation** (MFN in GATT Article I) and **national treatment** (NT in GATT Article III). Under MFN, each member must grant treatment to all other members as favorable as it extends to any individual member country. If Japan lowers a tariff on Indonesia's exports of a certain product, it must also lower its tariff on the exports of that product from *all other* member countries for "like products."[6] Exceptions to MFN treatment are allowed in the case of certain preferential trade agreements (see Chapter 9) and preferences granted to low- and middle-income countries (LMICs).

Table 8.1: GATT/WTO Rounds of Multilateral Trade Negotiations

Name of Round	**Years**	**Number of Countries**	**Auspices**
Geneva	1947	23	GATT
Annecy	1949	29	GATT
Torquay	1950-1951	32	GATT
Geneva	1955-1956	33	GATT
Dillon	1960-1961	39	GATT
Kennedy	1963-1967	74	GATT
Tokyo	1973-1979	99	GATT
Uruguay	1986-1994	117	GATT
Doha Round (failed)	2001-2015	Approximately 160	WTO

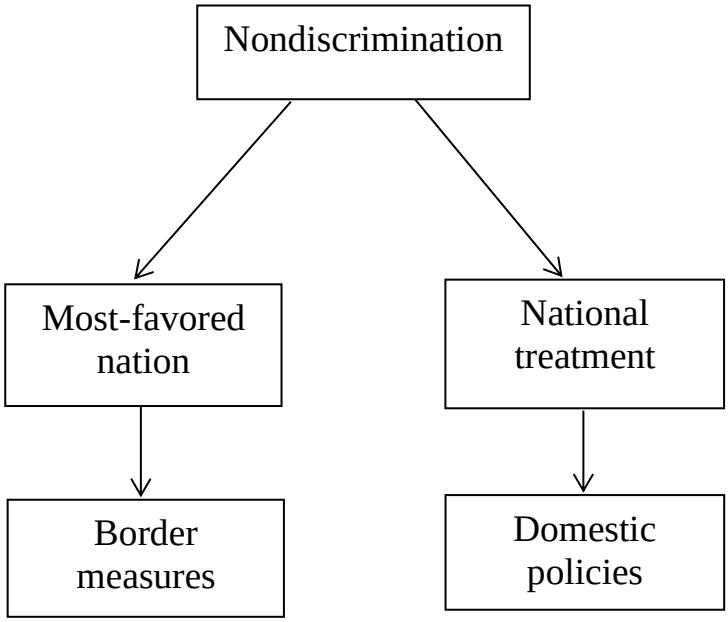
Whereas MFN addresses border measures, NT addresses internal, domestic policies. NT specifies that foreign goods within a country should be treated no less favorably than domestic goods with regard to tax policies and other regulations (e.g., technical standards), again for "like products." Together, MFN and NT compose the critically important, nondiscrimination principle, the engine that makes GATT/WTO function.

A second important GATT principle is a general *prohibition of quotas* or quantitative restrictions on trade (Article XI). This reflects a longstanding view that price distortions (tariffs) are preferred to quantity distortions in international markets. It also reflects the fact that, during GATT's birth, quantitative restrictions were one of the most significant impediments to trade. As always, there are exceptions allowed. Temporary quantitative restrictions on trade can be used in the case of balance of payments difficulties, but these must be implemented with the nondiscrimination principle of Figure 8.1 in mind.

[5] For a review of trade in goods, see Reinert (2017).

[6] MFN has its origins in the 1960 Cobden-Chevalier Treaty between England and France. See Irwin (1995).

Figure 8.1: The Nondiscrimination Principle



For many years, there were sector-specific exceptions to the general prohibition of quotas in the GATT. The first was the case of agricultural products, granted to address US agricultural programs, and used for decades to reduce US imports of sugar, dairy products, and peanuts.[7] The United States also insisted that export subsidies (also prohibited) be allowed for agriculture. Eventually, the European Union (EU) became the most vociferous supporter of these subsidies under its Common Agricultural Policy (CAP).[8] A second important exemption to quota prohibition was for textiles and clothing. These began to be applied in the early 1960s by the United States and were in place through the end of 2004, the 1995 to 2004 period being under the auspices of the World Trade Organization and an Agreement on Textiles and Clothing (ATC).[9]

A third important GATT principle is that of **binding**. GATT- and WTO-sponsored reductions in tariff levels have been based on the practice of binding tariffs at agreed-upon levels, often *above* applied levels. Once set, tariff bindings may not in general be increased in the future. Applied rates that are below bound rates, however, may be increased. Although

[7] See Hathaway (1987), p. 109.
[8] On the EU Common Agricultural Policy, see Hathaway (1987), Hathaway and Ingo (1996), and Chapter 11 of Dinan (2010).
[9] For the interesting history of textiles and clothing protection, see Reinert (2000) and Chapter 4 of Singh (2017).

there are provisions made for some renegotiation of bound tariffs, such renegotiations must be accompanied by compensation. The general purpose of the binding principle is to introduce a degree of predictability into the world trading system.[10]

The World Trade Organization

When the Uruguay Round of MTNs was launched in 1986, there was recognition that the GATT had inherent institutional flaws. This recognition evolved into a commitment to address these flaws, and by the end of 1993, the text of the Uruguay Round contained a final charter for a World Trade Organization (WTO). The old GATT was updated to GATT 1994 and folded into the institutional structure of the WTO. In fact, the WTO is sometimes referred to as a "tripod" in that it stands on the following three legs:

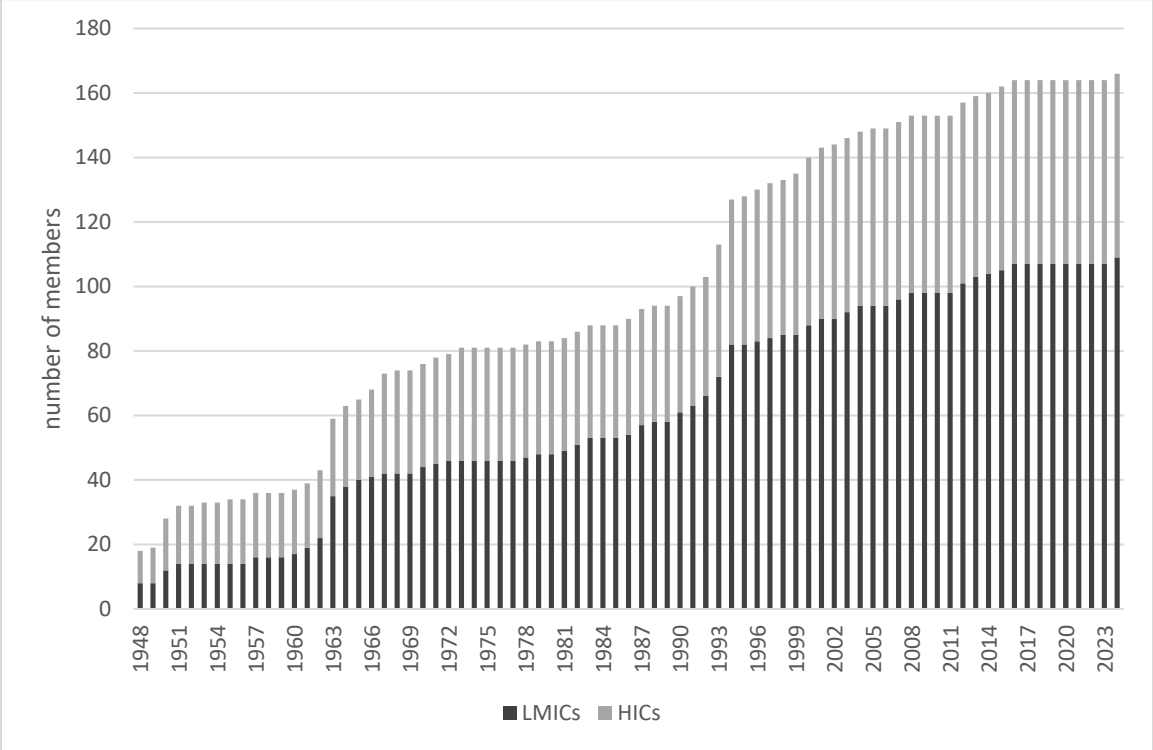
> *Trade in Goods*, governed by GATT 1994, including an Agreement on Agriculture and an Agreement on Textiles and Clothing (the latter expiring in 2005).
>
> *Trade in Services* as specified in the **General Agreement on Trade in Services** (GATS).
>
> *Intellectual Property* as specified in the **Agreement on Trade-Related Aspects of Intellectual Property Rights** (TRIPS).

Importantly, the Marrakesh Agreement included a WTO charter. It established the WTO as a legal international organization, stipulating that "The WTO shall provide the common institutional framework for the conduct of trade relations among its members."[11] The charter also defined the functions of the WTO, including: to facilitate the implementation, administration, and operation of the multilateral trade agreements; to provide a forum for negotiations among members concerning multilateral trade relations; to administer disputes among members; and to cooperate with the International Monetary Fund and World Bank.

The administrative aspects of the WTO are summarized in Table 8.2. Members of the WTO send representatives to a Ministerial Conference that meets at least once every two years and carries out the functions of WTO. The Ministerial Conference appoints a Director General of the WTO Secretariat who, in turn, appoints the staff of the Secretariat. The Ministerial Conference adopts "regulations setting out the powers, duties, conditions of service and term of office of the Director General." Between meetings of the Ministerial Conference, the General Council meets to conduct the affairs of the WTO. The General Council establishes rules and procedures, discharges responsibilities of the Dispute Settlement Body, and discharges the responsibilities of the Trade Policy Review Body.

[10] It is important to note that the MFN principle applies to *both* applied *and* bound tariff rates. Gaps between bound and applied rates are known as "water in the tariff."
[11] All quotations without citations are taken from GATT Secretariat (1994).

Figure 8.2: Members of the GATT and WTO (number)



Sources: wto.org, worldbank.org and authors calculations. Note that the income classification into HICs and LMICs is as 2024, not the year of accession.

When possible, the Ministerial Conference and the General Council make decisions by *consensus*. Consensus is defined to be a situation in which "no member, present at the meeting when the decision is taken, *formally objects* to the proposed decision" (emphasis added). Therefore, consensus does not necessarily imply unanimity but only the absence of formally expressed objection. This definition of consensus has proven to be important in the dispute settlement process of the WTO to be discussed below. When consensus cannot be reached, the WTO makes decisions through a process of majority voting (one vote per member).[12]

[12] This is in contrast to the International Monetary Fund and World Bank where voting is weighted. However, Narlikar (2021) has criticized the absence of actual voting and the consequent disenfranchisement of LMICS.

Table 8.2: Administrative Structure of the WTO

Body	**Composition**	**Function**
Ministerial Conference	Representatives of all members.	Meets at least once every two years. Carries out functions of WTO. Makes decisions and takes actions.
General Council	Representatives of all members.	Meets between the meetings of the Ministerial Conference. Establishes rules and procedures. Discharges responsibilities of the Dispute Settlement Body. Discharges responsibilities of the Trade Policy Review Body.
Council for Trade in Goods	Representative of all members.	Oversees the functioning of the multilateral agreements of Annex 1A.
Council for Trade in Services	Representative of all members.	Oversees the functioning of the multilateral agreements of Annex 1B.
Council for Trade Related Aspect of Intellectual Property Rights	Representative of all members.	Oversees the functioning of the multilateral agreements of Annex 1C.
Dispute Settlement Body	Representative of all members.	Establishes panels, adopts panel and Appellate Body reports, maintains surveillance of implementation of rulings and recommendations.
Dispute Settlement Panels	Three or five well-qualified governmental and/or non-governmental individuals.	Assist the dispute settlement body by making findings and recommendations in dispute settlement cases.
Appellate Body	Seven persons, three of whom serve on any one case.	Hears appeals from panel cases.
Secretariat	Director General and staff.	Provides support for the activities of the member countries.

This is the administrative structure of the WTO to which its members have agreed. As of mid-2024, this membership numbered 166 and has increased slowly but steadily over time as is illustrated in Figure 8.2. Does this membership have a positive impact on trade? That has been a simmering question in international economics and is discussed in the accompanying box. But our next task is to turn to some additional aspects of the WTO that govern the trade policies of these member countries.

Does WTO Membership Matter?

Is there any evidence that the GATT/WTO system has been helpful as a trade institution? International economists have a general sense that membership in the previous GATT and current WTO has tended to have a positive effect on international trade. However, in a famous research article, Rose (2004) provided evidence that GATT/WTO membership had very little impact on overall trade levels, and these results had some impact.

There are a couple of issues regarding Rose's research. First, he examined *overall* levels of trade in goods, not in specific sectors or trade in services. Second, subsequent research largely overturned Rose's initial results with evidence that the GATT/WTO has indeed contributed to expanded global trade. There are several statistical issues behind these different results, but the subsequent studies do seem more valid than the initial study (e.g., Felbermayr et al., forthcoming, Goldstein, Rivers and Tomz, 2007, Larch et al., 2020 and Subramanian and Wei, 2007).

But the question as to whether WTO membership increases trade or not might be the wrong one. As several researchers have pointed out, the real issue at hand is the overall institutional regime and the relative certainty it provides vis-à-vis potential trade wars. As stated by Felbermayr et al. (forthcoming), "the rules-based international trade system with the WTO as its crucial pillar has played an important role for economic prosperity over the past decades." That seems to be the main take-away from this line of research.

Sources: Felbermayr et al. (forthcoming), Goldstein, Rivers and Tomz (2007), Koopman et al. (2020), Larch et al. (2020), Rose (2024), and Subramanian and Wei (2007).

Trade in Goods

In the realm of trade in goods, the Marrakesh Agreement contains GATT 1994 (an update of the original GATT), an Agreement on Agriculture, and an Agreement on Textiles and Clothing (expired in 2005). The negotiated Agreement on Agriculture addressed three outstanding issues concerning international trade in agricultural goods: market access, domestic support, and export subsidies. In the case of *market access*, the Agreement on Agriculture replaced a quota-based system with a system of bound tariffs and tariff-reduction commitments through a process known as **tariffication** with import prohibitions (zero quotas)

being replaced with **tariff rate quotas** (discussed in the Appendix to Chapter 7). In this aspect, the Agreement on Agriculture represented a significant *change of regime*.

In the case of *domestic support*, a distinction is made between *non-trade-distorting policies* known as "green box" measures and *trade-distorting policies* known as "amber box" measures. Green box measures are exempt from any reduction commitments. Amber box measures are not exempt, and these commitments are specified in terms of what are known as "total aggregate measures of support" (total AMS). Finally, in the case of *export subsidies*, use has *not* been eliminated. Rather, it has been limited to specified situations.[13]

There are a couple of WTO issue areas that fall under trade in goods and receive continual attention. These include trade facilitation and fisheries subsidies. The former resulted in the 2013 Trade Facilitation Agreement (TFA). The TFA is aimed at reducing the "red tape" of goods crossing borders, including customs clearance procedures, and to leverage digital tools to make these processes more straightforward.[14] The 2022 Agreement on Fisheries Subsidies (AFS) addresses three things, namely support for illegal, unreported and unregulated (IUU) fishing, fishing overfished stocks, and subsidies for fishing on the unregulated high seas.[15] These two agreements show that, in some respects at least, trade in goods remains an active area discussions and negotiations for the WTO.

Trade in Services

As we discussed in Chapter 1, trade in services composes more than 20 percent of total world trade and has at times grown faster than trade in goods.[16] The WTO's General Agreement on Trade in Services (GATS) represented the first time that services were brought into a multilateral trade agreement. For these reasons, the GATS was a significant outcome of the Uruguay Round. The negotiations on GATS were somewhat difficult. Initially, LMICs were reluctant to agree to services being part of a multilateral agreement. A combination of pressure from the United States and LMICs discovering their own potential comparative advantage in some types of services eventually dissolved this reluctance.

To provide a structure to trade in services, GATS defines trade in services as occurring in one of *four modes*:

Mode 1: cross-border trade

Mode 2: movement of consumers

[13] As suggested by Hathaway and Ingco (1996), the Agreement on Agriculture is best viewed as a *change in rules* rather than as a significant program for the liberalization of trade in agricultural products. Similarly, Singh (2017) concluded that the Agreement on Agriculture "was ineffective for agricultural liberalization: The agricultural subsidies went up, and imports of commodities from the developing world may have decreased rather than increased" (p. 122).
[14] On the history of the TFA, see Eliason (2015).
[15] On the long negotiating history of the AFS, see Reinert (2024).
[16] For the role of services in the world economy, see Chanda (2017) and Francois and Hoekman (2010).

Mode 3: commercial presence or foreign direct investment (FDI)

Mode 4: movement of natural persons

Let's consider each of these in turn. *Cross-border trade* is a mode of supply that does not require the physical movement of either producers or consumers, such as when Indian firms provide medical transcription services to US hospitals via the internet technology. *Movement of consumers* involves the consumer travelling to the country of the producer and is typical of the consumption of tourism and health services. *Commercial presence* or FDI is involved for services that require a commercial presence by producers in the country of the consumers and is typical of financial services. Finally, the *movement of natural persons* involves a non-commercial presence by producers to supply consulting, construction, and instructional services.

The GATS includes the principle of nondiscrimination discussed above.[17] For those sectors a member country specifies on a "positive list," the GATS prohibits certain market access restrictions. Commitments to prohibit six types of limitations can be recorded on the positive list: the number of service suppliers; the total value of service transactions; the total number of operations or quantity of output; number of personnel employed; the type of legal entity in the case of FDI; and the share of foreign ownership in the case of FDI. Singh (2017) noted that "the positive list approach in the GATS agreement ensured that countries did not undertake trade liberalizations that were difficult politically" (p. 153). This contributed to the success of GATS negotiations.

The GATS negotiations also had an understanding that subsequent, periodic negotiations would be required to incrementally liberalize trade in services. These negotiations have resulted in the following protocols to the GATS:[18]

Second GATS Protocol: Revised Schedules of Commitments on Financial Services, 1995.

Third GATS Protocol: Schedules of Specific Commitments Relating to Movement of Natural Persons, 1995.

Fourth GATS Protocol: Schedules of Specific Commitments Concerning Basic Telecommunications, 1997.

Fifth GATS Protocol: Schedules of Specific Commitments and Lists of Exemptions from Article II Concerning Financial Services, 1998.

[17] Initially, each member was allowed to specify nondiscrimination exemptions on a "negative list" of sectors upon entry into the agreement that lasted for 10 years.
[18] The list begins with the "Second Protocol" because the first protocol was the GATS itself.

The Second and Fifth Protocols on financial services were a significant outcome of the post-Marrakesh negotiations, although the negotiation process was contentious. As a result, more than 100 WTO Members have entered into multilateral commitments in the areas of insurance, banking, and other financial services. The important Fourth Protocol on telecommunications is discussed in the accompanying box. The Third Protocol on the movement of natural persons (Mode 4 defined above) was not significant, involving only a few countries.[19]

Telecommunication Services in the GATS

As we discussed in Chapter 1, information and communication technology (ICT) has been an important driver of globalization processes. Telecommunications is an important type of ICT and an important component of services trade via Mode 1 and Mode 3. Further, the quality of telecommunications services helps to support trade in both goods and services.

Despite this importance, the 1994 Marrakesh Agreement did not contain an agreement on trade in telecommunication services. Negotiations in this issue had begun in 1989 at the instigation of the United States, but these negotiations broke down because the United States was unsatisfied with the market access concessions of other countries.

A subsequent Group on Basic Telecommunications (GBT) did reach an agreement in 1997 in the form of the Agreement on Basic Telecommunications (ABT) and an associated Reference Paper (RP). The ABT addresses telecommunications trade in 14 sub-sectors and contains general provisions on nondiscrimination and transparency. The RP addresses regulatory principles and competition, including interconnection issues.

Under the ABT, initially 69 countries made commitments on market access and the national treatment of foreign services providers, and most of these countries also made commitments to regulatory principles under the RP. Moving forward to mid-2024, 123 WTO members had made market access and national treatment commitments under the ABT, and 105 members had made regulatory commitments under the RP. This increase in commitments suggests that aspect of the GATS has had some impact.

The ABT and RP helped to liberalize a highly regulated and monopolized sector under an umbrella of global rules. Technical savvy was displayed not just by HIC negotiators but also by those of LMICs. The latter weren't just acquiescing to the demands of the United States and the European Union but were responding to their own development policy objectives, a positive thing.

[19] This has been a disappointment to developing countries because Mode 4 services trade is where developing countries possess an important comparative advantage. This point was stressed by Mattoo (2000) and Winters et al. (2003).

There are criticisms that the ABT and the RP just represent "standstill" commitments (liberalizations that had already occurred under other circumstances), but trade policy analysts emphasize that the reduction in uncertainty regarding commitments always matters to market participants. The RP has also nudged regulatory environments across countries to be more similar, and this also has benefits for firms operating in the important telecommunications market. The ABT and RP therefore represent a continued success of the WTO.

Sources: Abeliansky, Barbero and Rodriguez-Crespo (2021), Blouin (2000), Bronckers and Larouche (1997), Cowhey and Klimenko (2000), Fredebeul-Krein and Freytag (1999), Singh (2008, 2017), and the World Trade Organization.

The GATS committed signatories to begin a new round of services negotiations beginning in the year 2000, known as GATS 2000. On the agenda of GATS 2000 were subsidies, safeguard measures, government procurement, and additional market access. Progress in these negotiations was slow, and it took the launch of the Doha Round in 2001 to revive them. Plurilateral requests and offers were made in 2006 and 2008, but as we will see, the Doha Round ended in failure in 2015.

As will be discussed in Chapter 9, further services liberalization took place in preferential trade agreements (PTAs) in the form of what are known as GATS-Plus provisions. In addition, towards the end of the Doha Round, secret services negotiations in the form of a Trade in Services Agreement (TiSA) took place outside the WTO (but in Geneva) between 23 parties, including the European Union. This effort also failed.[20] There continue to be ongoing discussions among WTO members on potential services liberalization, but without much in the way of specific outcomes.

Intellectual Property

One of the most contentious aspect of the Marrakesh Agreement is to be found in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Intellectual property or IP is an asset in the form of rights conferred upon a product of invention or creation by a country's legal system.[21] The TRIPS agreement defined intellectual property as belonging to any of six categories: copyrights; trademarks; geographical indications; industrial designs; patents; and layout designs of integrated circuits.[22] It is thus quite comprehensive.

[20] On the TiSA and its relationship to both GATS and to PTAs, see Marchetti and Roy (2014)

[21] See Maskus (2000). Forsyth (2017) defined intellectual property rights as "rights over intangible products of the human mind, such as designs, stories, creations, inventions, processes and knowledge" (p. 83).

[22] Geographical indications are defined as: "indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographic origin."

The trade-relatedness of IP refers to the fact that "theft" of intellectual property suppresses trade of the goods in question. For example, if India produces its own "off-patent" version of a foreign-patented drug, it will import substantially less of that drug. If it agrees to honor the patent, it will import the drug or host FDI from the foreign patent holder. Similarly, if a jeweler in Dubai sells counterfeit Cartier watches in place of authentic Cartier watches, this trademark violation will suppress the imports of authentic Cartier watches.[23]

The United States and the European Union strongly pushed for the inclusion of IP in the Uruguay Round. This stance reflected the views of the Intellectual Property Committee (IPC) of MNEs that spawned a position paper commissioned by IBM. This position paper was the foundation of the US approach to the TRIPS negotiations.[24] LMICs, led by India and Brazil, opposed the TRIPS negotiations. In the end, the United States and the European Union prevailed, and TRIPS became a part of the WTO. The ensuing disagreements, which have continued to this day, were well-summarized by Barton et al. (2006):

> Conclusion of the TRIPS agreement has had important legal and political implications. As a legal matter, it has taken the GATT/WTO system into uncharted territory, covering not merely border measures, but also mandating threshold national regulatory standards and means of enforcing those standards. Politically, it has placed WTO rules and negotiations into the center of domestic political battles over the appropriate scope of IP protection, and has been responsible more than any other issue area for exacerbating North-South acrimony in Geneva (pp. 140-141).

The TRIPS agreement applied the principle of nondiscrimination to IP. Any advantage a WTO member grants to any country with regard to IP must be granted to all other members. If India agrees to honor UK pharmaceutical patents, it must honor US pharmaceutical patents as well.

The TRIPS agreement also sets out obligations for members structured around the six IP categories listed above:

1. *Copyrights*. Members must comply with the 1971 Berne Convention on copyrights. Computer programs are protected as literary works under the Berne convention, and the unauthorized recording of live broadcasts and performances is prohibited. The term of this protection is 50 years.

2. *Trademarks*. Trademarks of goods and services are to be protected for a term of no less than seven years. Provisions for the registration of trademarks must be made and are renewable indefinitely.

[23] In the past, Cartier crushed counterfeit watches with steamrollers to protest against counterfeiting.
[24] See Chapter 6 of Singh (2017) who noted that "the work of the IPC was directly responsible for the hardening of the IP position in the developed world" (p. 142). This example also points to the role of MNEs in forging aspects global economic institutions.

3. *Geographical indications*. Members must provide legal means to prevent the false use of geographical indications.

4. *Industrial designs*. Members must protect "independently created industrial designs that are new or original." This protection does not apply to "designs dictated essentially by technical or functional considerations." The protection of industrial designs is at least 10 years.

5. *Patents*. The Agreement states, "patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application." Exceptions to this do exist and include the protection of public order, and human, animal and plant life. Patents can be extended for at least 20 years, representing a harmonization to the HIC standard.

6. *Layout designs of integrated circuits*. The distribution of protected layout designs, as well as integrated circuits embodying protected layout designs, is forbidden. This protection is extended for at least 10 years.

Because most IP is held by the citizens and firms of HICs, and because LMICs have historically had less IP protection, the TRIPS agreement has raised the cost of many goods and services to LMICs with consequent adverse welfare impacts. In the short term at least, the TRIPS agreement represents a global transfer of income from lower-income individuals to high-income individuals in the world.

There is another way to state this. While the liberalization of trade in goods and services involves the standard gains from trade discussed in Chapters 2-4, this is not the case for the TRIPS. Indeed, some prominent trade economists consider the TRIPS to be a welfare-worsening, "non-trade" agenda item that has no place in the WTO. In addition, the TRIPS inappropriately restricts the freedom of countries to choose the intellectual property regime that is best for them.[25]

Can LMICs potentially expect any long-run benefits from the TRIPS Agreement? Some trade economists (e.g, Maskus, 2000) have argued that they can.[26] These potential benefits can come in the form of increased inward FDI, increased technology transfer, and increased domestic innovation. In this view, the TRIPS Agreement imposes short-term costs in the hopes of generating long-term benefits. Ironically given its importance, and as noted by a number of researchers, there is a paucity of empirical research on the economic

[25] See, for example, Panagariya (2004).
[26] Other economists are less sanguine. For example, Goldin and Reinert (2012, Chapters 7 and 8) called for a *moratorium* on further IP commitments and a revaluation of existing commitments.

impacts of TRIPS. Some of the existing research is presented in Table 8.3.[27] These studies suggest some support for TRIPS having a positive economic impact, but nonetheless, there has been very little empirical analysis.

Further, qualitative studies of TRIPs and technology transfer suggests little reason to see HICs as having kept their commitments under the agreement (e.g., Fox, 2019). This is another cause for concern. Finally, there has also been an ongoing issue of the role of TRIPS in public health particularly as it relates to access to medicines. This issue is considered in the accompanying box.

Table 8.3: A Sample of Studies on the Economic Impacts of TRIPS

Study	*Context and Time Frame*	*Findings*
Adams (2010)	Impact of TRIPS on FDI into 75 LMICs between 1985 and 2003.	TRIPS increased FDI flows into most LMICs.
Alexiou, Nellis and Papageorgiadis (2016)	Impact of TRIPS on FDI and growth in 42 countries between 1998 and 2011.	Increased patent enforcement under TRIPs promoted growth and FDI inflows. This was not the case for patent law.
Chadha (2009)	Impact of TRIPS on the patenting activity of 65 Indian pharmaceutical firms between 1991 and 2004.	TRIPS increased the patenting activity of Indian pharmaceutical firms.
Di Vita (2013)	Impact of TRIPS on growth for 38 countries between 1986 and 2006.	TRIPS did have a positive impact on growth (and increased patent applications), but this was less than that of technology transfer via FDI.
Zhang and Yang (2016)	Impact of TRIPS compliance on FDI using gravity model for panel data on 23 LMICs between 1985 and 2012.	TRIPS compliance increases FDI inflows for most of the LMICs in the sample.

Note: To narrow the scope, this table focuses on studies considering TRIPS itself rather than intellectual property protection more generally.

[27] More generally, Liu (2016) found empirical support for IP protection on growth in HICs and low-income countries (LICs) but not for middle-income countries (MICs) where the bulk of poor people live. This researcher stated that "empirical work does not provide enough hard evidence on the conditions which, under stronger IPRs, can enhance innovation and therefore growth in developing countries" (p. 1001).

Access to Medicines

If there is one area in which the TRIPS agreement has been most contentious, it is in the area of *access to medicines*. With the end of the TRIPS transition period in 2005, costs of pharmaceuticals for some notable countries rose as off-patent, generic production became prohibited, including in approximately 40 countries that had previously disallowed patent protection of pharmaceuticals. In addition, the practice of "ever-greening" of pharmaceutical patents beyond the standard 20 years continued.

Immediately after TRIPS went into effect in 1995, the US government began to pressure the governments of Brazil, India, and South Africa to honor US patents on HIV/AIDS drugs. This pressure violated TRIPS Article 31 allowing for the use of **compulsory licensing** to produce generics in the case of public health emergencies. In reaction to this, a number of LMICs threatened to prevent the launch of the Doha Round in 2001. The compromise was a special Declaration on the TRIPS Agreement and Public Health that reaffirmed Article 31.

While Article 31 permits compulsory licensing, Article 31(f) limited the use of these generic drugs to the *domestic markets* of the producing countries. Matthews (2004) noted that this had "the practical effect of preventing exports of generic drugs to countries that do not have significant pharmaceutical industries themselves" (p. 78). This emerged as a limit to addressing public health emergencies in some countries.

A WTO "Decision" on this issue was adopted in 2003 that allowed least-developed WTO members to import off-patent, generic drugs (in practice, usually from India). This Decision, however, had a few weaknesses. First, it was procedurally demanding. Second, deliberations at the TRIPS Council regarding the application of the decision could be lengthy. Third, there was a concern that HICs with pharmaceutical industries could take unilateral action against LMICs making use of the decision. Fourth, there was evidence of bilateral, "TRIPS-Plus" activity that might undermine rights under the Decision.

The 2003 Decision directed the WTO TRIPS Council to prepare an amendment on the issue. Agreement regarding this amendment was reached in 2005 but was not fully ratified until 2017, over two decades after the advent of TRIPS. It is still not fully clear how useful the amendment is in practice. In one review, Abbas and Riaz (2017) concluded that the Amendment "was not likely to make the desired practical impact because of the overly cumbersome formalities that accompany it" (p. 252). Another review by Urias and Ramani (2020) noted the compulsory licensing has decreased the prices of pharmaceuticals in many instances, but the practice still faces many institutional hurdles, as well as a lack of available generic manufacturers.

These considerations suggest that the 2005 amendments did not effectively address the concerns regarding TRIPS and access to medicines. Indeed, these concerns led the WTO's TRIPS Council to agree to push TRIPS pharmaceutical provisions off until 2033 for least-

developed country members. This was followed by a 2022 Ministerial Decision to relax specific TRIPS provisions during the COVID-19 pandemic. Actions such as these suggest that the WTO has become somewhat more flexible on the issue of access to medicines.

Sources: Abbas and Riaz (2017), Abbott and Reichman (2007), Forsyth (2017), Matthews (2004, 2006), and Urias and Ramani (2020).

Dispute Settlement

Trade economist Chad Bown (2009) noted that "international trade disputes between countries are an inevitable feature of economic relations in an interdependent world" (p. 1). Recognizing this reality, the Marrakesh Agreement included an Understanding on Rules and Procedures Governing the Settlement of Disputes, known as the Dispute Settlement Mechanism or DSM. The original GATT had been somewhat unclear about the resolution of disputes, and in establishing the WTO, the Marrakesh Agreement attempted to clarify dispute settlement procedures. In the event of disputes, the WTO turns to a Dispute Settlement Body or DSB whose function is to administer the dispute settlement rules and procedures (see Table 8.2). The DSB makes decisions by "consensus." As with the WTO in general, consensus for the DSB exists "if no Member, present at the meeting of the DSB when the decision is taken, formally objects to the proposed decision."

The DSM is summarized in Figure 8.3. If a member of the WTO has a complaint against another member, the first step in settling this dispute is a *consultation* between the members involved. If the consultation process fails to settle a dispute within 60 days, the complaining member *may* request the establishment of a *panel*.[28] Panels are composed of three or five "well-qualified governmental or non-governmental individuals." The function of the panel is to assist the DSB in the dispute settlement process. It consults the parties involved and provides the DSB with a written report of its findings. The DSB then has 60 days to adopt the report by consensus unless a party to the dispute decides to appeal.

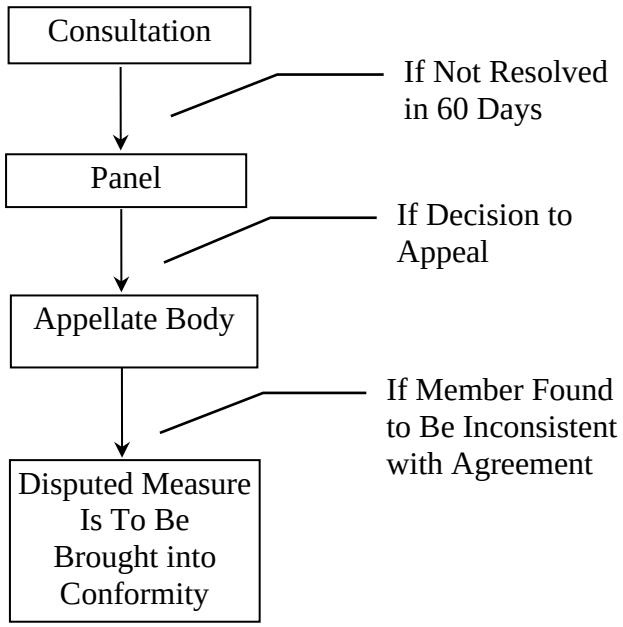
An appeal of a panel report is referred to an Appellate Body, composed of seven persons "of recognized authority, with demonstrated expertise in law, international trade and the subject matter of the covered agreements generally." The Appellate Body reviews the appeal and submits its report to the DSB. At this point, it is stipulated that the Appellate Body report "shall be adopted by the DSB and unconditionally accepted by the parties to the dispute unless the DSB decides by consensus *not* to adopt the Appellate Body report within 30 days following its circulation to the members." Therefore, given the definition of consensus for the DSB, *any DSB member can effectively insist on the adoption of the Appellate Body report*. Renowned international trade lawyer John Jackson (1994) referred to this Appellate Body procedure as "ingenious" and noted that "the result of the procedure is that appellate report will in virtually every case come into force as a matter of international law" (p. 70). The way

[28] The word "may" here is important. As noted by Hoekman and Kostecki (2009, p. 93), consultation processes can last over 200 days.

in which this dispute settlement process evolved in the famous Bananas Dispute is presented in the accompanying box.

The DSM applies to all aspects of the Marrakesh Agreement. It significantly improves the procedures of the old GATT and therefore makes a significant contribution to the conduct of international trade.[29] However, the effectiveness of the procedures depends on members' *commitment* to it. A country has the option of ignoring the outcome of the dispute settlement process. In this case, the complaining member has the right to impose retaliatory tariffs on a volume of imports from the other country determined by the DSB as in the Banana Dispute.

Figure 8.3: The Dispute Settlement Mechanism in the WTO



The Bananarama Dispute

Perhaps the most famous of all dispute settlement proceedings of the WTO is the "bananas dispute" between five Latin American countries and the European Union. Its roots actually go back to the GATT era when, in 1993, Costa Rica, Colombia, Nicaragua, Guatemala and

[29] For more on the WTO dispute settlement procedures, see Bown (2009), Davey (2000), Hoekman and Mavroidis (2000), and Kuruvila (1997).

Venezuela invoked GATT dispute resolution proceedings against the EU (then EC) harmonized banana regime. This regime was put into place to support the banana exports of former colonies in the African, Caribbean and Pacific (ACP) group recognized by the EU and consisted of a discriminatory tariff rate quota system (see appendix to Chapter 7). The ensuing GATT panel found against the EU, citing the regime's violation of MFN and quantitative restriction principles. However, the EU and the ACP blocked the adoption of the panel under GATT's positive consensus rule on panel reports. A similar result followed a second GATT panel requested by the five Latin American countries that addressed the specific rules of the EU banana regime, but it was again blocked.

With creation of the WTO in 1995, the United States joined the Latin American claimants in support of US-based banana multinationals. Having acceded to the WTO in 1996, Ecuador also joined in asking for a panel that year. The panel issued its report in 1997, again finding against the EU. The EU appealed, and an Appellate Body was set up, but it did not significantly change the panel's findings. The WTO's negative consensus rule ensured that the Appellate Body's findings were adopted. The EU subsequently obtained an arbitration finding allowing it time to bring its banana regime into conformity.

As a result of this, a *new* EU banana regime replacing country-specific measures began in 1999. Not satisfied, the United States, the original five Latin American countries, Ecuador and Panama initiated further consultations with the EU. The United States was planning to retaliate against the EU under its own domestic trade legislation, and a WTO arbitration decision set the value of this retaliation in 1999. This complicated consultative process, as well as further subsidiary disputes, finally resulted in a revised, new EU banana regime in 2001. Initially, this appeared to satisfy all parties by phasing in a tariff-only regime by 2006.

What the EU put in place in 2006, however, maintained duty-free access for ACP countries, while imposing a €176 per ton tariff on bananas from non-ACP sources. In 2007, both Ecuador and the United States initiated new dispute settlement proceedings against the EU. In 2007, a panel again found against the EU. Parties to the dispute met in 2008 to attempt to resolve their disagreements, but it took until the end of 2009 for the matter to be resolved with an announced, gradual reduction of the tariff from €176 per ton to €114 per ton by 2017. With the approval of this compromise by the European Parliament in early 2011, the "Bananarama" dispute finally came to an end.

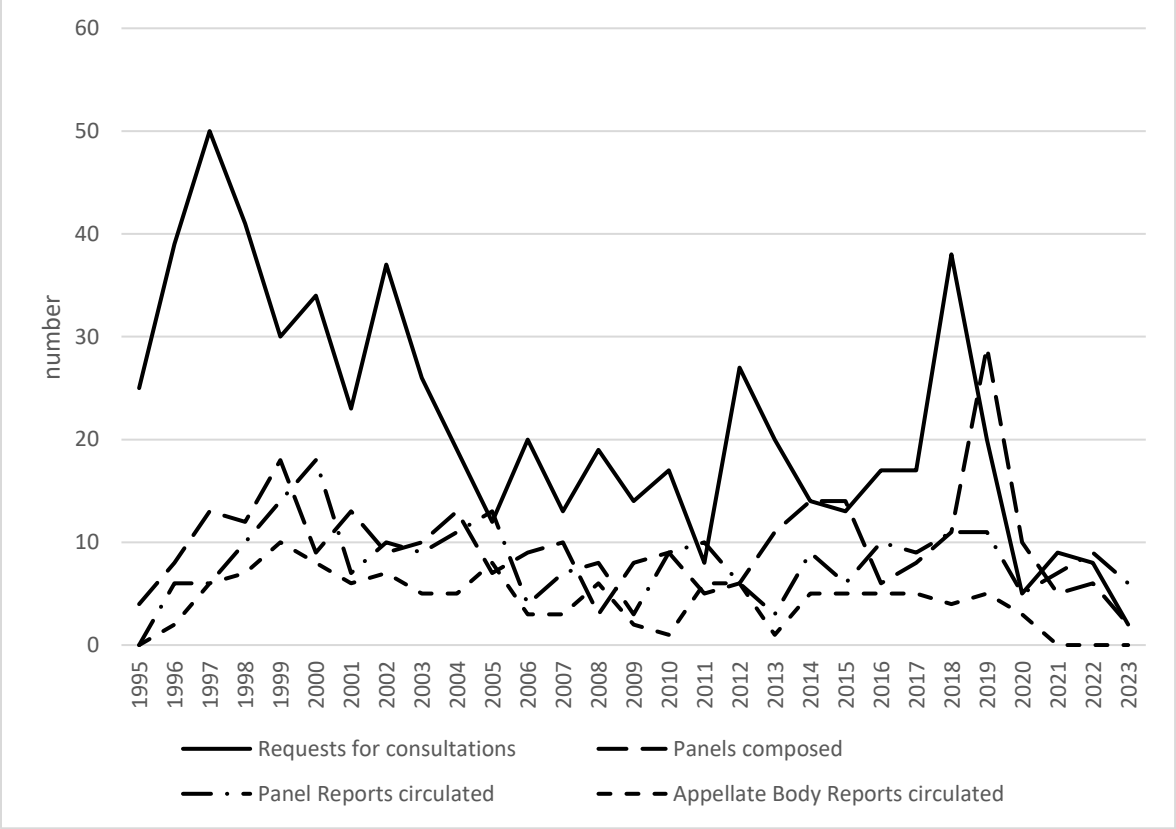
Sources: Herrmann, Kramb and Monnich (2003) and Salas and Jackson (2000).

Between 1995 and 2020, the WTO dispute settlement process was utilized a great deal and proved to be a success.[30] The dispute settlement activity is illustrated in Figure 8.3. Then, in 2019, the US Trump administration refused to allow the appointment of the requisite number of members to the Appellate Body (three). In the words of Bown and Keynes (2020), the US Trump administration "shot the sheriffs," and the subsequent Biden Administration did not change this policy. As can be seen in Figure 8.4, before 2019, each

[30] See, for example, Leitner and Lester (2017).

of the four dispute settlement elements had a "spiky" quality but were utilized quite extensively. After 2019, however, they each began to trend towards zero. As a result of the actions of the United States, a central component of the WTO was rendered ineffective.[31] This was a bad faith action on the part of the United States and a significant blow for the functioning of the WTO.

Figure 8.4: WTO Dispute Settlement Activity



Source: wto.org

[31] The irony of this is the fact that, as noted by Irwin (2020), "the dispute settlement process was strengthened in the Uruguay Round largely because the U.S. insisted upon it" (p. 281n). Given the demise of the Appellate Body, the European Union (EU) has led an effort to develop the Multiparty Interim Appeal Arbitration Arrangement (MPIA) as an alternative. On this effort, see Pauwelyn (2023).

The Doha Round

As mentioned in Chapter 1, the 1999 Seattle Ministerial Meeting of the WTO was a failure. In part, this was due to the protests of young people against the WTO as an agent of globalization. It was also due to a lack of agreement between HIC WTO members and LMIC WTO members on a number of issues discussed in this chapter. Due to this failure, WTO members were not able to launch the hoped-for new round of multilateral trade talks that year.

A second attempt to launch a new round took place at the 2001 Ministerial Meeting in Doha, Qatar. This attempt was successful, although the same disputes still simmered beneath the surface. While progress was made on the TRIPS access to medicines issue discussed in a box above, the EU maintained its intransigent position on agricultural trade liberalization. Additionally, the LMICs were displeased with the introduction of new agenda items in the form of the new "Singapore issues" from the 1996 Singapore Ministerial Meeting, including competition policy, transparency in government procurement, trade facilitation, and investment.[32]

The progress that did take place in the Doha Round was itself very uneven. For example, at the Cancún Ministerial Meeting in 2003, the European Union had insisted that the Singapore issues be included in the negotiations. Further, the EU and the United States had issued a draft text on the agricultural negotiations in quasi-bilateral fashion. Some LMICs opposed both these proposals. Indeed, a new coalition of LMICs countries emerged at Cancún. Known as the G20, this group opposed the EU/US agricultural text, proposing more strenuous liberalization in agricultural markets. Despite predictions to the contrary, the group *held firm* during the negotiations, and the ministerial statement coming out of Cancún was only one-half page long.[33]

Some progress took place in 2004 with the "July 2004 Package" that reaffirmed the Doha Ministerial commitments in agriculture and acknowledged some specific concerns of the LMICs (e.g., cotton subsidies). Most important was the adoption of a "tiered approach" to reductions in tariffs and domestic support, as well as the commitment to eliminate exports subsidies by an unspecified date. Despite this progress, the July 2005 deadline was missed. A small breakthrough occurred in October 2005 with proposals for domestic support being tabled using the tiered framework. In July 2006, negotiations among the United States, the EU, Japan, Brazil, India, and Australia regarding the Doha Round broke down, and the WTO Director General Pascal Lamy suspended further discussions noting that "We have missed a very important opportunity to show that multilateralism works."

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[32] See Chapter 13 of Hoekman and Kostecki (2009).

[33] At the time, a representative of the Brazilian government stated: "The real dilemma that many of us had to face was whether it was sensible to accept an agreement that would essentially consolidate the policies of the two subsidizing superpowers… and then have to wait for another 15 to 18 years to launch a new round, after having spent precious bargaining chips" (Narlikar and Tussie, 2004, p. 951).

While it was not appreciated at the time, the high-water mark of the Doha Round took place in July 2008 in the form of the "July 2008 Package." The July 2008 Package included progress in agricultural negotiations, tariffs on manufactured goods, and even services. Subsequent to the July 2008 Package, however, disagreement emerged over a special safeguard mechanism (SSM) in agriculture called for by LMICs (especially India) and "sectorals," the reduction in tariffs on manufactured goods beyond what was negotiated in 2008 and called for by HICs.[34] A 2010 "stocktaking" meeting turned out to be one in which there was "no stock to take."

In retrospect, the failure of the July 2008 package marked the end of the Doha Round. Indeed, Singh (2017) stated that "the breakdown of the July 2008 framework is now regarded as the breakdown of the Doha Round itself" (p. 125). But it took until the 2015 Ministerial Meeting in Nairobi, Kenya for this to be officially acknowledged and the Doha Round called to a close. Consequently, the most-recent attempt at MTNs in the form of the Doha Round proved to be a failure with no successful round taking place since 1994.[35]

Trade Negotiations

Trade negotiations are a both a field of practice and a field of research, with the research informing the practice. There are a set of fundamental concepts of trade negotiations recognized by both practitioners and researchers. Let's consider just a few here.

The first important concept is *best alternative to a negotiated agreement* (BATNA), namely the most advantageous alternative available to a negotiating party in the event that the negotiations fail. The better the BATNA of a party, the greater is its negotiating strength.

A second important concept is *agenda setting*, the determination of issues to be included or excluded in a particular set of negotiations. This is clearly important at the beginning of a set of negotiations, but as Singh (2008, Chapter 2) emphasizes, it is also important *throughout* negotiations, with earlier-set agendas affecting agenda-setting efforts later in negotiations.

A third important concept is *coalitions*. MTNs and PTAs are complex, multi-issue and multi-player games. Coalition formation over time allows individual countries to increase their bargaining power on a particular issue. Of course, the function of coalitions could

[34] The special safeguard mechanism was different from normal WTO safeguards in that there was no requirement to demonstrate injury. In the case of the sectorals, Laborde (2011) reported that HICs made unreasonable demands across nearly the entire range of manufacture goods.
[35] For a sense of what success could have looked like, see Martin and Mattoo (2010).

also decrease these countries' bargaining power on other issues. Overlapping coalitions are a feature of modern MTNs and PTAs.

A fourth important concept is *lobbying*. Only governments have "standing" at the GATT and WTO. But behind these governments are an array of domestic actors and interests with stakes in trade negotiations. Additionally, actors in one country can align themselves with actors in a second country to put pressure on that second country's government. Further, some international organizations (multinational enterprises and non-governmental organizations) can engage in their own lobbying across a set of country governments.

A final negotiations concept is *forum shopping*. This is where a member country engages in negotiations on a particular topic area (e.g., services or intellectual property) in multiple forums as a threat strategy in one forum. The most important type of forum shopping takes place across MTNs and PTAs, with the latter providing a threat to the former.

BATNA, agenda setting, coalitions, lobbying, and forum shopping are central aspects of all trade negotiations. There are others as well. In many cases, these concepts apply not only to *trade* negotiations but to many different types of international negotiations. They are therefore important to the evolving institutional structure of the world economy.

Sources: Hoekman and Kostecki (2009), Odell (2000) and Singh (2008, 2017)

China in the WTO

We mention in Chapter 1 that the entry of China into the world trading system was a significant event. This change was propelled by China joining the WTO in 2001.[36] Since its accession to the WTO, a great deal of attention regarding China's membership has focused on the role of its state-owned enterprises (SOEs), which account for 25-30 percent of its GDP.[37] As Mavroidis and Sapir (2021) point out, however, the WTO's dispute settlement system has been open to treating Chinese SOEs as "public bodies" and thus actionable under its Agreement on Subsidies and Countervailing Measures (ASCM). These researchers have also noted that WTO actions have made it clear that the details of the China's Protocol of Accession are "justiciable." In other words, within the WTO, China can be held to account for the commitments it made in these protocols above and beyond standard WTO agreements. These apply to trade in goods, trade in services, and intellectual property protection (including technology transfer).

Regarding China's behavior within the WTO, it is widely recognized among trade policy professionals that, when it suffers a loss in the WTO dispute settlement process, China mends its ways in each instance.[38] Its record is better than that of the European Union and the United States. This suggests first that, where it violates WTO provisions, the

[36] It is important to remember that, in the bilateral trade relationship between China and the United States, the United States began granting China MFN status in the 1980s, so China's WTO membership was not as dramatic a change as sometimes alleged.
[37] See, for example, Zhang (2019).
[38] See, for example, Reich (2018)

dispute settlement process can be effectively used to affect its trade policies. This is another reason why the current disfunction of the DSM is unfortunate.

The Environment

The issue of trade and the environment within the GATT and WTO has largely revolved around GATT Article III on national treatment. The question has been whether domestic environmental policies can function as grounds to treat domestic and imported goods differentially based on environmental considerations. This, in turn, often comes down to the phrase "like products" used in Article III. For if environmental considerations allow products to be *unalike* that would otherwise be *like*, then NT would not necessarily apply.

In 1991, the GATT Secretariat reactivated a long-dormant Working Group on Environmental Measures and International Trade (EMIT). This was in response to a dispute resolution panel issuing a controversial finding in the now-famous tuna-dolphin case. The panel ruled against a US law banning imports of Mexican tuna that involved dolphin-unsafe fishing practices, issued in response to the US Marine Mammal Protection Act. The panel argued that the import ban violated the general prohibition against quotas (Article XI) and that the United States had not attempted to negotiate cooperative agreements on dolphin-safe tuna fishing. The US environmental community reacted strongly against the GATT panel ruling, casting the GATT as anti-environment.[39]

With the advent of the WTO in 1995, EMIT was replaced by the Committee on Trade and the Environment (CTE). Most LMIC members of the WTO have taken a dim view of the work of the CTE, fearing the possibility of further protection against their exports on environmental grounds or "green protection." The subsequent polarization of views has inhibited the effectiveness of the CTE.[40]

In 1999, the WTO took up the trade and environment issue formally with the publication of a report on this subject (Nordström and Vaughan, 1999). As with Runge (1994) and others, this report argued that increased trade can have both positive and negative impacts on the environment. The report emphasized, however, that trade-driven growth cannot always be counted upon to deliver improvements in environmental quality through increased incomes. Consequently, these higher incomes must be "translated" into higher environmental quality through the mechanism of international cooperation.

The decade of the 1990s ended with another difficult case regarding the impact of shrimp fishing on sea turtles.[41] As described by Cosbey and Mavroidis (2014), this case

[39] For a review of the tuna-dolphin case, see Chapter 4 of Runge (1994). Cosbey and Mavroidis (2014) strongly argued that the case should have been considered under Article III NT rather than Article XI

[40] See Shaffer (2001), for example.

[41] In this case, the Appellate Body overruled the panel.

overturned a number of the findings of the previous tuna-dolphin case, and actually led to a different outcome in a second tuna-dolphin case that began in 2008. These authors emphasized that the trend in WTO dispute settlement of environmental issues "has been toward deference to nationally enunciated objectives and the measures chosen to achieve them, even where those measures are trade restrictive, unilateral and with extra-jurisdictional effect" (p. 300). In this manner, the WTO has come a long way from the tuna-dolphin legacy.

The environmental issue rose again in the form of the EU's Carbon Border Adjustment Mechanism (CBAM) introduced by the European Commission in 2021. The intent was to price imports (specifically of cement, electricity, fertilizer, iron, steel and aluminum) based on carbon content to maintain a carbon price within the EU Emissions Trading System (EU ETS). The aim was to prevent "carbon leakage" via imports in which carbon is "underpriced," as well as to ensure a "level playing field" between EU products subject to carbon pricing and imports.

As state by Sato (2022), the problem with CBAM is that "it would have an incredible impact on the industries and policies of other countries, as it automatically applies to all covered products, regardless of country of export," in many cases by "default values" rather than actual emissions (pp. 384-385). Further, although the legal issues are quite complex, it is not clear if CBAM would conform to the MFN and NT principles of the WTO or its principles regarding exhaustible natural resources. It appears to be a problematic proposal.

Conclusion

The GATT and WTO have functioned as central institutions of international trade, and evidence suggests that they have supported the expansion of global trade relations. If the past is any guide, however, the WTO will continue to be, as stated in the introduction to this chapter, "both lauded and vilified with equal intensity by various groups with concerns about trade policy." Indeed, while there have been small wins in trade facilitation and fisheries subsidies, the attack by the United States on the DSM has effectively hobbled the organization.

Regarding the old GATT agenda of trade in goods, LMICs are still at a market access disadvantage in some manufacturing sectors with their exports facing tariff peaks in high-income markets. In agriculture, they also face hundreds of billions of dollars of annual subsidies applied by the United States, the European Union, China, and India.[42] The ongoing controversies over TRIPS also have a similar fault line. In the short term, most LMICs will lose from intellectual property protection by paying higher prices for goods and services. Bearing these short-term costs, these countries hope for long-term benefits of increased inward FDI and domestic innovation.

[42] See, for example, Peterson (2009) and OECD (2023).

The failure of the Doha Round, the rise of populist national governments with anti-trade agendas, and the undermining of the DSM by the US government all contribute to an emerging crisis of legitimacy for the WTO.[43] Given the irreplaceable nature of the WTO as the institution of world trade, this crisis of legitimacy is a serious development that bodes ill for a well-functioning global trading system.

Review Exercises

1. What is meant by *nondiscrimination* in international trade agreements? Be as specific as you can.

2. One criticism of the Agreement on Agriculture is that it involves something known as *dirty tariffication*. Dirty tariffication involves quotas being converted into tariffs that are larger than the actual tariff equivalent of the original quota. Draw a diagram like that of {Figure 7.4}, illustrating dirty tariffication.

3. The chapter mentioned the four modes by which trade in services can occur: cross-border trade; movement of consumers; foreign direct investment; and personnel movement. Try to give an example of each of these modes. The more specific the better.

4. The chapter also gave an example of the way that the "theft" of intellectual property in the case of pharmaceuticals suppresses trade in this product. Try to give another example of such trade suppression in intellectual property.

5. Can you think of any ways in which trade issues and environmental issues interact? Try to be as specific as you can.

Further Reading and Web Resources

On the GATT, see Blackhurst (2009a), Irwin, Mavroidis and Sykes (2008), and Chapter 3 of Singh (2017). On the WTO, see Barton, Goldstein, Josling and Steinberg (2006), Blackhurst (2009b), Hoekman and Kostecki (2009), Lee (2016) and Koopman et al. (2020). A more legal approach can be found in Jackson (1997) and Matsushita et al. (2015). For a useful discussion of the MFN principle, see Horn and Mavroidis (2001). Intellectual property and TRIPS are addressed by Maskus (2000) and Forsyth (2017). The subject of LMICs in trade negotiations is covered by Odell (2006) and Singh (2017). Journals covering the subjects of this chapter include the *Journal of World Trade*, *World Trade Review*, and the *Journal of International Economic Law*.

To keep up with the work of the WTO, the reader will want to visit its website: www.wto.org. Perhaps the most useful links here are Trade Topics and News and Events.

[43] See Narlikar (2021) who traces the sources and explicates the symptoms of the crisis of legitimacy, while also offering a few suggestions on paths forward.

However, the document dissemination facility at this website is a particularly useful resource.

References

Abbas, M.Z. and S. Riaz (2017) "Compulsory Licensing and Access to Medicines: TRIPS Amendment Allows Export to Least-Developed Countries," *Journal of Intellectual Property Law & Practice,* 12:6, 451-452.

Abbott, F.M. and J.H. Reichman (2007) "The Doha Round's Public Health Legacy: Strategies for the Production and Diffusion of Patented Medicines under the Amended TRIPS Provisions," *Journal of International Economic Law*, 10:4, 921-987.

Abeliansky, A.L., J. Barbero and E. Rodriguez-Crespo (2021) "ICTs Quality and the Quality and Margins of Trade," *Telecommunications Policy*, 45:1, 102056.

Adams, S. (2010) "Intellectual Property Rights, Investment Climate and FDI in Developing Countries," International Business Research, 3:3, 201-209.

Alexiou, C., J. Nellis and N. Papageorgiadis (2016) "The Effect of Patent Enforcement Strength on FDI and Growth," *Multinational Business Review*, 24:4, 334-353.

Barton, J.H., J.L. Goldstein, T.E. Josling and R.H. Steinberg (2006) *The Evolution of the Trade Regime: Politics, Law, and Economics of the GATT and the WTO*, Princeton University Press.

Blackhurst, R. (2009a) "General Agreement on Tariffs and Trade (GATT)," in K.A. Reinert, R.S. Rajan, A.J. Glass and L.S. Davis (eds.), *The Princeton Encyclopedia of the World Economy*, Princeton University Press, 521-528.

Blackhurst, R. (2009b) "World Trade Organization," in K.A. Reinert, R.S. Rajan, A.J. Glass and L.S. Davis (eds.), *The Princeton Encyclopedia of the World Economy*, Princeton University Press, 1185-1191.

Blouin, C. (2000) "The WTO Agreement on Basic Telecommunications: A Reevaluation," *Telecommunications Policy,* 20:2, 135-142.

Bronckers, M.C.E.J. and P. Larouche (1997) "Telecommunications Services and the World Trade Organization," *Journal of World Trade*, 31:3, 5-47.

Bown, C.P. (2009) *Self-Enforcing Trade: Developing Countries and WTO Dispute Settlement,* Brooking Institution.

Bown, C.P. and D.A. Irwin (2015) "GATT's Starting Point: Tariff Levels Circa 1947," National Bureau of Economic Research Working Paper 21782.

Bown, C.P. and Keynes, S. (2020) "Why Trump Shot the Sheriffs: The End of WTO Dispute Settlement 1.0," *Journal of Policy Modeling*, 42:4, 799-819.

Chadha, A. (2009) "TRIPS and Patenting Activity: Evidence from the India Pharmaceutical Industry," *Economic Modeling*, 26:2, 499-505.

Chanda, R. (2017) "Trade in Services," in K.A. Reinert (ed.), *Handbook of Globalisation and Development*, Edward Elgar, 36-58.

Cosbey, A. and P.C. Mavroidis (2014) "Heavy Fuel: Trade and the Environment in the GATT/WTO Case Law," *Review of European, Comparative and International Environmental Law*, 23:3, 288-301.

Cowhey, P. and M.M. Klimenko (2000) "Telecommunications Reform in Developing Countries after the WTO Agreement on Basic Telecommunications Services," *Journal of International Development*, 12:2, 265-281.

Davey, W.J. (2000) "The WTO Dispute Settlement System," *Journal of International Economic Law*, 3:1, 15-18.

Debebe, G. (2017) "Global Organizations," in K.A. Reinert (ed.), *Handbook of Globalisation and Development*, Edward Elgar, 463-484.

Dinan, D. (2010) *Ever Closer Union: An Introduction to European Integration*, Lynne Rienner.

Di Vita, G. (2013) "The TRIPS Agreement and Technological Innovation," *Journal of Policy Modeling*, 35:6, 964-977.

Eliason, A. (2015) "The Trade Facilitation Agreement: A New Hope for the World Trade Organization," *World Trade Review*. 14:4, 643-670.

Felbermayr, G., M. Larch, E. Yalcin and Yotov (forthcoming) "On the Heterogeneous Trade and Welfare Effects of GATT/WTO Membership," *Review of World Economics*.

Forsyth, M. (2017) "Intellectual Property," in K.A. Reinert (ed.), *Handbook of Globalisation and Development*, Edward Elgar, 83-99.

Fox, D.M. (2019) "Technology Transfer and the TRIPS Agreement: Are Developed Countries Meeting Their End of the Bargain?," *Hastings Science and Technology Law Journal*, 10:1, 1-38.

Francois, J.F. and B. Hoekman (2010) "Services Trade and Policy," *Journal of Economic Literature*, 48:3, 642-692.

Fredebeul-Krein, M. and A. Freytag (1999) "The Case for a More Binding WTO Agreement on Regulatory Principles in Telecommunication Markets," *Telecommunications Policy*, 23:9, 625-644.

GATT Secretariat (1994) *The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Text*.

Goldin, I. and K.A. Reinert (2012) *Globalization for Development: Meeting New Challenges*, Oxford University Press.

Goldstein, J.L, D. Rivers and M. Tomz (2007) "Institutions in International Relations: Understanding the Effects of GATT and WTO on World Trade," *International Organization*, 61:1, 37-67.

Hathaway, D.E. (1987) *Agriculture and the GATT: Rewriting the Rules*, Institute for International Economics.

Hathaway, D.E. and M.D. Ingo (1996) "Agricultural Liberalization and the Uruguay Round," in W. Martin and L.A. Winters (eds.), *The Uruguay Round and the Developing Countries*, Cambridge University Press, 30-57.

Herrmann, R., M. Kramb and C. Monnich (2003) "The Banana Dispute: Survey and Lessons," *Quarterly Journal of International Agriculture*, 42:1, 21-47.

Hoekman, B.M. and M. Kostecki (2009) *The Political Economy of the World Trading System: From GATT to WTO*, Oxford University Press.

Hoekman, B.M. and P.C. Mavroidis (2000) "WTO Dispute Settlement, Transparency and Surveillance," *The World Economy*, 23:4, 527-542.

Horn, H. and P.C. Mavroidis (2001) "Economic and Legal Aspects of the Most-Favored-Nation Clause," *European Journal of Political Economy*, 17:2, 233-279.

Irwin, D. (1995) "The GATT in Historical Perspective," *American Economic Review*, 85:2, 323-328.

Irwin, D. (2020) *Free Trade Under Fire*, Princeton University Press.

Irwin, D.A., P.C. Mavroidis and A.O. Sykes (2008) *The Genesis of the GATT*, Cambridge University Press.

Jackson, J.H. (1990) *Restructuring the GATT System*, Royal Institute of International Affairs.

Jackson, J.H. (1994) "The World Trade Organization, Dispute Settlement and Codes of Conduct," in S.M Collins and B.P. Bosworth (eds.), *The New GATT*, Brookings Institution.

Jackson, J.H. (1997) *The World Trading System*, MIT Press.

Koopman, R., J. Hancock, R. Piermartini and E. Bekkers (2020) "The Value of the WTO," *Journal of Policy Modeling*, 42:4, 829-849.

Kuruvila, P.E. (1997) "Developing Countries and the GATT/WTO Dispute Settlement Mechanism," *Journal of World Trade*, 31:6, 171-207.

Laborde, D. (2011) "Sectoral Initiatives in the Doha Round," in W. Martin and A. Matoo (eds.), *Unfinished Business? The WTO's Doha Agenda*, World Bank, 277-297.

Lee, Y.-S. (2016) *Reclaiming Development in the World Trading System*, Cambridge University Press.

Leitner, K. and S. Lester (2017) "WTO Dispute Settlement 1995-2016: A Statistical Analysis," *Journal of International Economic Law*, 20:1, 171-187.

Liu, W.-H. (2016) "Intellectual Property Rights, FDI, R&D and Economic Growth: A Cross-Country Empirical Analysis," *The World Economy*, 39:7, 983-1004.

Marchetti, J.A. and M. Roy (2014) "The TISA Initiative: An Overview of Market Access Issues," (2014), *Journal of World Trade*, 48:4, 683-728,

Martin, W. and A. Mattoo (2010) "The Doha Development Agenda: What's on the Table?" *Journal of International Trade and Economic Development*, 19:1, 81-107.

Maskus, K.E. (2000) *Intellectual Property Rights in the Global Economy*, Institute for International Economics.

Matsushita, M., T.J. Schoenbaum, P.C. Mavroidis and M. Hahn (2015) *The World Trade Organization: Law, Practice, and Policy*, Oxford University Press.

Matthews, D. (2004) "WTO Decision on Implementation of Paragraph 6 of the Doha Declaration on the TRIPS Agreement and Public Health: A Solution to the Access to Essential Medicines Problem?" *Journal of International Economic Law*, 7:1, 73-107.

Matthews, D. (2006) "From the August 30, 2003 WTO Decision to the December 6, 2005 Agreement on Amendments to TRIPS: Improving Access to Medicines in Developing Countries," *Intellectual Property Quarterly*, 10:2, 91-130.

Mattoo, A. (2000) "Developing Countries in the New Round of GATS Negotiations: Towards a Pro-Active Role," *The World Economy*, 23:4, 471-489.

Mavroidis, P.S. and A. Sapir (2021) *China and the WTO: Why Multilateralism Still Matters*, Princeton University Press.

Messerlin, P.A. (2013) "The Doha Round," in A. Lukauskas, R.M. Stern and G. Zanini (eds.), *Handbook of Trade Policy for Development*, Oxford University Press, 254-300.

Narlikar, A. (2021) "From a Legitimacy Deficit to an Existential Crisis: The Unfortunate Case of the World Trade Organization," in G. Oguz Gok and H. Mehmetcik (eds.), The Crises of Legitimacy in Global Governance, Routledge, 107-121.

Narlikar, A. and D. Tussie (2004) "The G20 and the Cancún Ministerial: Developing Countries and Their Evolving Coalitions in the WTO," *World Economy*, 27:7, 947-966.

Nordström, H. and S. Vaughan (1999) *Trade and the Environment*, World Trade Organization.

North, D.C. (1990) *Institutions, Institutional Change and Economic Performance*, Cambridge University Press.

Odell, J.S. (2000) *Negotiating the World Economy*, Cornell University Press.

Odell, J.S. (ed.) (2006) *Negotiating Trade: Developing Countries in the WTO and NAFTA*, Cambridge University Press.

Organization for Economic Cooperation and Development (2023) *Agricultural Policy Monitoring and Evaluation 2023: Adapting Agriculture to Climate Change*, OECD Publishing.

Panagariya, A. (2004) "TRIPS and the WTO: An Uneasy Marriage," in K. Maskus (ed.), *The WTO, Intellectual Property Rights and the Knowledge Economy*, Edward Elgar, 42-53.

Pauwelyn, J. (2023) "The WTO's Multi-Party Interim Appeal Arbitration Arrangement (MPIA): What's New?" *World Trade Review*, 22:5, 693-701.

Peterson, E.W.F. (2009) *A Billion Dollars a Day: The Economics and Politics of Agricultural Subsidies*, Wiley-Blackwell.

Reich, A. (2018) "The Effectiveness of the WTO Dispute Settlement System: A Statistical Analysis," in T. Kono, M. Hiscock and A. Reich (eds.), *Transnational Commercial and Consumer Law: Current Trends in International Business Law*, Springer, 1-43.

Reinert, K.A. (2000) "Give Us Virtue, But Not Yet: Safeguard Actions under the Agreement on Textiles and Clothing," *World Economy*, 23:1, 25-55.

Reinert, K.A. (2017) "Trade in Goods," in K.A. Reinert (ed.), *Handbook of Globalisation and Development*, Edward Elgar, 19-35.

Reinert, K.A. (2024) "Fisheries Subsidies and the World Trade Organization: A Concise History," *International Negotiation*, 29:2, 193-217.

Rose, A.K. (2004) "Do We Really Know That the WTO Increases Trade?" *American Economic Review*, 94:1, 98-114.

Runge, C.F. (1994) *Freer Trade, Protected Environment*, Council of Foreign Relations.

Runge, C.F. (2009) "Multilateral Environmental Agreements," in K.A. Reinert, R.S. Rajan, A.J. Glass and L.S. Davis (eds.), *The Princeton Encyclopedia of the World Economy*, Princeton University Press, 795-799.

Salas, M. and J.H. Jackson (2000) "Procedural Overview of the WTO EC-Banana Dispute," *Journal of International Economic Law*, 3:1, 145-166.

Sato, S.Y. (2022) "EU's Carbon Border Adjustment Mechanism: Will It Achieve Its Objective(s)," *Journal of World Trade*, 56:3, 383-404.

Shaffer, G.C. (2001) "The World Trade Organization under Challenge: Democracy and the Law and Politics of the WTO's Treatment of Trade and Environmental Matters," *Harvard Environmental Law Review*, 25:1, 1-93.

Singh, J.P. (2008) *Negotiation and the Global Information Economy*, Cambridge University Press.

Singh, J.P. (2017) *Sweet Talk: Paternalism and Collective Action in North-South Trade Relations*, Stanford University Press.

Urias, E. and S.V. Ramani (2020) "Access to Medicines after TRIPS: Is Compulsive Licensing an Effective Mechanism to Lower Drug Prices," *Journal of International Business Policy*, 3:4, 367-384.

Winters, L.A., T.L. Walmsley, Z.K Wang, and R. Grynberg (2003) "Liberalizing the Temporary Movement of Natural Persons: An Agenda for the Development Round," *The World Economy*, 26:8, 1137-1161.

Zhang, C. (2019) "How Much Do State-Owned Enterprises Contribute to China's GDP and Employment?" Unpublished Paper, World Bank.

Zhang, H. and X. Yang (2016) "Trade-Related Aspects of Intellectual Propery Rights Agreements and the Upsurge of Foreign Direct Investment in Developing Countries," *Economic Analysis and Policy*, 50, 91-99.

Appendix: Tariff Rate Reduction Formulas

One aspect of multilateral trade negotiations or MTNs is tariff reduction. The Kennedy Round (see Table 8.1) introduced linear or proportional tariff reduction that can be represented as:

$$t_1 = a\,t_0 \quad 0 \le a \le 1 \tag{8.1}$$

where t_1 is the final tariff, and t_0 is the initial or base tariff. If, for example, $a = 0.8$, then all tariffs would be reduced by 20 percent.

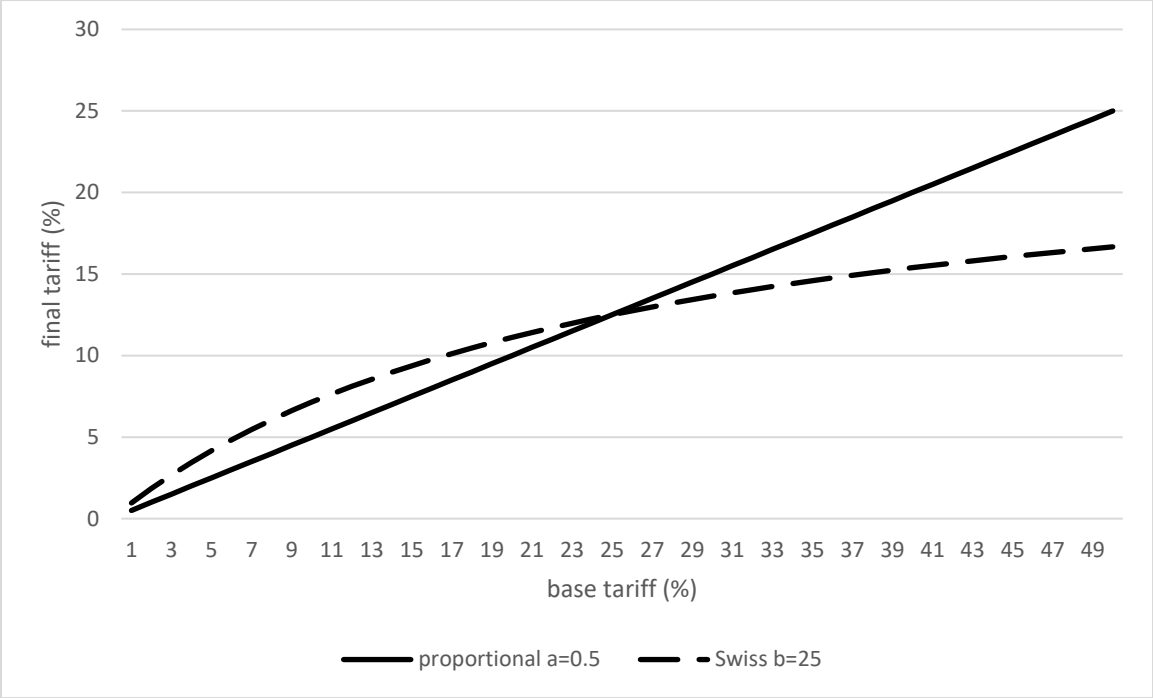
The Tokyo Round of MTNs (again see Table 8.1) introduced tariff reduction via the "Swiss formula" that can be represented as:

$$t_1 = \frac{b\,t_0}{b + t_0} \quad 0 \le b \le 100 \tag{8.2}$$

where b is the ceiling tariff.

The purpose of the Swiss formula is to reduce higher base tariffs by a greater proportion than lower base tariffs. This can be seen in Figure 8.3, which translates base tariffs along the horizontal axis into final tariffs along the vertical axis. The linear formula is presented as the solid line for a proportional reduction of 50 percent or $a = 0.50$. Here you can see in the figure that a base tariff of 50 percent is reduced to a final tariff of 25 percent. The Swiss formula is presented as the dashed line with a ceiling of 25 percent or $b = 25$. Here, for each base tariff of over 25 percent, the reduction of the base tariff is greater than in the linear case. Further, as you can see, the gap between the proportional and Swiss reductions over the 25 percent base tariff increases as the base tariff increases.

Figure 8.3: Tariff Reduction Formula Comparison



Source: author's calculations