

The important role played in the world economy by GATT (and now its successor, the WTO) is widely accepted. Since its creation in 1947 the GATT/WTO has grown in membership from an initial set of 23 countries to a roster that now includes more than 140 countries.¹ The expanding GATT/WTO membership reflects the success that this organization has had in facilitating tariff reductions. Through the eight rounds of trade-policy negotiations that have been sponsored by GATT, culminating with the completion of the Uruguay Round in 1994 and the creation of the WTO, the average ad valorem tariff on industrial goods has fallen from over 40 percent to below 4 percent. In light of the significant impact that GATT has had on the world economy, it is therefore important to assess the progress that has been made toward providing a theoretical interpretation of GATT and its main features.

While the past success of GATT justifies in its own right a theoretical interpretation of GATT's main features, this task is perhaps even more important when the future of this multilateral institution is considered. A critical question in the coming years is whether the same set of principles on which postwar multilateral liberalization has been based can or should be applied under the WTO to a host of "new" trade-policy issues. These issues include the spread of preferential

1. The GATT (General Agreement on Tariffs and Trade) was created in 1947, and the WTO (World Trade Organization) was established on January 1, 1995, as a result of the Marrakesh Agreement (also referred to as the WTO Agreement) of April 1994. The WTO Agreement includes the text of GATT, and hence GATT continues to exist as a substantive agreement. The WTO Agreement includes as well a set of additional agreements that build on and extend GATT principles to new areas. For both of these reasons, understanding GATT is the key to understanding the WTO. Therefore the primary focus of this book is on GATT. Moreover since much of our discussion refers to GATT history, and to specific articles of GATT—as opposed to the additional articles of the WTO Agreement—we often make reference to GATT rather than the WTO.

trading agreements, the treatment of labor and environmental standards, the harmonization of competition policies, the subsidization of agricultural exports, and the treatment of services, foreign direct investment and intellectual property. An understanding of why GATT's principles have worked well in the more traditional arena of multilateral tariff liberalization for industrial goods can lay the foundation for answers to this critical question.

In this book we present research that speaks to the purpose and design of GATT. The book proceeds in three basic steps. We first discuss the major theoretical approaches to the study of trade agreements. Next, we develop the institutional context for our study with a description of the history and design of GATT and the WTO. Finally, in what constitutes the bulk of the book, we draw on the theoretical literature in order to interpret and evaluate the institutional design of GATT.

We begin in chapter 2 with a review of the major theoretical approaches to trade agreements. We organize this discussion around a simple but basic question: What is the purpose of a trade agreement? In asking this question, we seek a "problem" that would arise for governments in the absence of a trade agreement and that could be "solved" with the creation of an appropriate trade agreement. Suppose, for example, that in the absence of a trade agreement governments would set their policies in a unilateral fashion. The creation of a trade agreement is then potentially appealing to governments provided that an inefficiency (relative to governments' preferences) exists when trade policies are set unilaterally.² Once the inefficiency is identified, the purpose of a trade agreement can be understood as an attempt to "undo" the inefficient behavior that arises under unilateral tariff setting, so that all member governments may thereby enjoy higher welfare.

Our review of the theoretical literature suggests that there are two kinds of problems that a trade agreement might solve. The first possibility is that the trade-policy decisions of one government give rise to an externality that affects the welfare of another government. This is the possibility that is emphasized in the *traditional economic approach to*

2. We evaluate efficiency from the perspective of the welfare enjoyed by governments. As we discuss below, the government welfare functions that we employ may include political considerations, and as a consequence free trade need not be efficient. This approach is appropriate, since the GATT/WTO is an organization that facilitates the negotiation of trading arrangements that are mutually beneficial to its members (i.e., the member governments).

trade agreements. Under this approach a government (of a large country) is assumed to set its import tariff in order to maximize national welfare, while recognizing that some of the cost of the tariff falls upon foreign exporters whose products sell at a lower world price (i.e., at a diminished terms of trade). This “terms-of-trade externality” naturally leads governments to set unilateral tariffs that are higher than would be efficient. The purpose of a trade agreement is then to eliminate the terms-of-trade-driven restrictions in trade volume that arise when policies are set unilaterally, and thereby offer governments a means of escape from a Prisoners’ Dilemma.³

An apparent weakness of the traditional approach is the seemingly unrealistic hypothesis that governments maximize national welfare. Real-world governments, after all, have both political and economic motivations. It is thus important to assess whether the purpose of trade agreements identified by the traditional approach is in any sense tied to the hypothesis of national-welfare maximization. To explore this issue, we follow the recent political-economy literature and allow that governments are also concerned with the distributional consequences of their tariff choices. We refer to this generalization of the traditional approach as the *political-economy approach to trade agreements*. While the inclusion of political concerns enhances the realism of the model, we show that it does not offer any separate purpose for trade agreements. Whether or not governments have political motivations, it is their ability to shift the costs of protection onto one another through terms-of-trade movements that creates an inefficiency when tariffs are selected unilaterally. In both the traditional and political-economy approaches to trade agreements, therefore, the purpose of a trade agreement is to offer a means of escape from a terms-of-trade-driven Prisoners’ Dilemma.

3. The terms-of-trade externality is not the only possible “cross-border” externality, but it is the externality that has figured most prominently in the theoretical literature. For example, an international “environmental externality” can arise if the trade-policy decisions of one government affect production decisions that in turn alter the global environment and thereby the welfare of a trading partner. See also Flam and Helpman (1987) and Helpman and Krugman (1989), who point out that unilateral tariff choices can be inefficient in the presence of monopolistic competition, even in the absence of terms-of-trade movements. Further, as Ethier (1998a,b) argues, a “scale externality” may arise if production technologies exhibit international increasing returns to scale, in which case the value of a trade agreement to one government can be influenced by the volume of trade between other countries. Ethier (2000) considers the possibility of a “political externality” across countries.

— A second kind of problem for a trade agreement to solve arises when a government is unable to make credible commitments to its own private sector. A government, for example, may wish to commit that in the future it will not protect a certain industry, or that it will undertake extensive regulatory reforms. Such a commitment is potentially valuable to the government, since it induces behavior (e.g., investments in cost reduction or in export sectors) from the private sector that the government finds desirable. A problem in this case is that if the private sector does not respond in the desired fashion, then it may not be credible for the government to follow through on its proposed plan. A trade agreement can potentially help a government solve its time-consistency problem, if the agreement enhances the credibility of the government's plan, by calling for some form of retaliation in the event that the plan is not executed.⁴ The *commitment approach to trade agreements* thus identifies a distinct problem for a trade agreement to solve; however, the application of this approach to the study of GATT's institutional design is not yet well developed. While we describe recent insights that emerge from the application of the commitment approach, our primary emphasis is therefore directed toward the traditional economic and political-economy approaches.⁵

In light of our discussion just above concerning the traditional economic and political-economy approaches to trade agreements, our decision to emphasize these approaches can be viewed as well as a decision to adopt the position that the purpose of a trade agreement is to offer a means of escape from a terms-of-trade-driven Prisoners' Dilemma. Yet real-world trade-policy negotiators rarely if ever speak of the terms-of-trade consequences of trade-policy choices. They choose instead to emphasize the market-access implications of trade policy. What, then, is the real-world counterpart to terms-of-trade motivations? We pause in chapter 2 to consider this question, and provide

4. Of course, the retaliation threat is effective only if the trading partner has the ability to punish the domestic government. The obvious possibility is that the trading partner raises its level of protection, which harms the domestic government through the terms-of-trade externality. In this sense a cross-country externality, such as the terms-of-trade externality, lies at the heart of all of the major theoretical approaches to the study of trade agreements.

5. While these three approaches include most of the theories that have been offered for trade agreements, there are some contributions that do not fit comfortably within any of the three approaches. Among these, we discuss Ethier's (1998a,b, 2000) contributions in later chapters, wherein we consider possible alternatives to the political-economy approach and research that interprets and evaluates the central GATT rules.

a surprisingly simple answer: the terms-of-trade consequences of trade-policy choices can be expressed equivalently in the language of market access, and so the terms-of-trade consequences and the market-access implications of trade-policy choices are different ways of expressing the same thing. This equivalence is very important, as it provides a point of contact between the modeling approaches that we emphasize in this book and the concerns that dominate real-world trade negotiations.

The traditional and political-economy approaches indicate that a trade agreement can increase the welfare of member governments, if the agreement undoes the inefficient restrictions in trade volume that arise in the absence of an agreement. Governments can thus jointly benefit from a trade agreement that calls for a mutual reduction in the levels of protection. But this perspective raises a pair of further questions. First, how should the institution through which governments negotiate over trade policies be designed? Following the legal literature, we draw a distinction between “power-based” and “rules-based” approaches to trade negotiations. In a power-based arrangement, governments negotiate over tariffs in a fashion that is unconstrained by any previously agreed-upon rules of negotiation. The relative bargaining power of the negotiating governments is then an important component in the determination of the eventual tariff-negotiation outcome. By contrast, under a rules-based approach, the governments agree upon a set of rules or principles by which subsequent tariff negotiations must abide. In this case power asymmetries between governments can be expected to play a diminished role in trade-policy negotiations. We develop this distinction further in chapter 2.

Second, how is the trade agreement to be enforced? Enforcement is an important concern, since each government has a short-term incentive to deviate to a higher-than-is-efficient tariff, in order to obtain the consequent terms-of-trade gains. Governments are dissuaded from such opportunistic behavior only if the pursuit of short-term gains results in long-term losses, as when other governments retaliate in kind. Viewed in this way, it is clear that the tariffs that governments can achieve as part of a “self-enforcing” trade agreement reflect a balance between the short-term gains from protection and the long-term losses from retaliation. While the “most-cooperative” tariffs that governments can enforce are more efficient than the tariffs that would occur in the absence of an agreement, they may not be fully efficient. In chapter 2 we draw on the theoretical literature that

directly addresses the enforcement of trade agreements and argue that a meaningful agreement must constitute an equilibrium of a repeated trade-policy game.

In chapter 3 we turn to the second step of the book and describe the origin and design of GATT and the WTO. We note that the origin of GATT can be traced to the disastrous economic performance that accompanied the high tariffs of the 1920s and 1930s. The design of GATT is rules based: GATT members accept a set of rules or principles that describe the manner in which any subsequent trade-policy negotiations may proceed. The primary enforcement task of GATT is then to ensure compliance with these rules. While there are a large number of specific articles in GATT, it is widely accepted that the pillars of the GATT approach are the principles of reciprocity and nondiscrimination.

Broadly speaking, mutual adjustments in trade policy conform to the principle of reciprocity if these policy adjustments bring about changes in the volume of each country's imports that are of equal value to changes in the volume of its exports. This principle arises as a norm of behavior when governments negotiate tariff reductions (i.e., "concessions") in a GATT round, as it has been observed that governments seek to achieve a "balance of concessions" in their tariff negotiations. The principle of reciprocity also appears as an explicit GATT rule when, for example, trading partners meet to renegotiate tariffs to higher levels. In this case, when one government withdraws a concession to which it had previously agreed, its trading partner is allowed under GATT rules to withdraw a "substantially equivalent concession" of its own. The principle of nondiscrimination is a GATT rule that requires (subject to certain important exceptions) that the import tariff selected by a government on a particular good cannot be higher for the exports of one GATT member than for those of another.⁶

With the creation of GATT, governments therefore constructed a rather elaborate set of rules with which to address their perceived trade-policy problems. But do these rules reflect an underlying economic logic? It is tempting to conclude that they do not. Putting aside the terms-of-trade externality mentioned above, standard economic theory holds that the optimal unilateral policy for a national-

6. Our description here focuses on the most-favored-nation (MFN) tariff obligation as the embodiment of nondiscrimination in the GATT/WTO. Nondiscrimination in the GATT/WTO extends as well to nonborder measures through the national-treatment obligation.

welfare maximizing government is free trade. From this perspective, the emphasis placed on reciprocity in GATT is surely mysterious. Why would one government be willing to help itself with a tariff reduction only if its trading partner made a similar “concession?” Indeed, according to standard economic reasoning, there is no reason for GATT to exist in the first place, and so any attempt to offer an “economic” interpretation of GATT is destined for failure. This view is regularly advanced, but it is perhaps stated most eloquently in Krugman’s (1991, pp. 25–27) writings:⁷

There is no generally accepted label for the theoretical underpinnings of the GATT. I like to refer to it as “GATT-think”—a simple set of principles that is entirely consistent, explains most of what goes on in negotiations, but makes no sense in terms of economics. . . . The reason why GATT-think works is, instead, that it captures some basic realities of the political process.

By contrast, in what constitutes the third step of this book, we review a literature that suggests that GATT does, in fact, make economic sense. This literature places the terms-of-trade externality at center stage, and argues that the GATT/WTO may be understood as an institution whose central features assist governments—whether politically motivated or not—as they attempt to escape from a terms-of-trade-driven Prisoners’ Dilemma.

We develop this argument in chapters 4 through 10, where we present various extensions of the traditional terms-of-trade model of trade agreements and interpret and evaluate GATT rules in the context of these extended models. We ask positive questions: Can GATT rules be understood as the means through which governments solve their terms-of-trade problem? Do the predictions that come from this perspective conform with GATT experience? And we also ask normative questions: If the terms-of-trade problem does account for the purpose of GATT, are the rules of GATT properly designed? Are the basic GATT principles well suited for application to the new trade-policy issues currently facing the WTO?

We begin the third step of the book in chapter 4, where we consider in some detail the principle of reciprocity. We then turn in chapter 5 to the other pillar of the GATT/WTO system and analyze the principle of nondiscrimination. As we discuss in these chapters, it is possible to understand reciprocity as a principle that “neutralizes” all externalities that travel through world prices, while the principle of

7. See also Krugman (1997).

nondiscrimination then ensures that no other trade-policy externalities arise across trading partners. Reciprocity and nondiscrimination thereby serve as complementary principles that assist governments in their bilateral negotiations to achieve more efficient trade-policy outcomes. These principles have as well a virtuous property when the welfare of nonparticipants is considered: together, reciprocity and nondiscrimination can help to ensure that a bilateral negotiation between trading partners does not alter the welfare of the government of a third country. Reciprocity and nondiscrimination thus limit the ability of negotiating partners to appropriate the welfare of nonparticipants. By the same logic, the ability of a third-country government to “free ride” on the nondiscriminatory tariff cuts negotiated by others is diminished when negotiations are also constrained to abide by the principle of reciprocity.

In line with the abstract discussion of power-based and rules-based approaches to trade-policy negotiations, we suggest further that the specific rules of reciprocity and nondiscrimination diminish the extent to which power asymmetries across countries influence trade-policy outcomes. More speculatively, we argue that the decision by governments to form a rules-based institution may have been motivated in part by a desire to encourage the participation of “weaker” countries. Recognizing that the governments of smaller countries might fear that they would eventually be “held up” at the bargaining table, the governments of powerful countries (i.e., the United States and Great Britain) effectively committed with a rules-based system not to exploit their weaker trading partners. From this perspective, the selection of a rules-based approach solved a commitment problem (across countries) that ensured participation, while the specific rules employed within this approach then served to solve the terms-of-trade problem. We also describe more broadly how this selection may have helped to diminish a variety of additional strategic concerns that could arise in a power-based system.

We return to the topic of enforcement in chapter 6. There, we note that the balance between the short-term incentive to protect and the long-term fear of retaliation can be altered when the trading environment changes; as a consequence, the most-cooperative tariffs that can be enforced may vary with underlying market conditions. Expanding on this basic viewpoint, we offer interpretations of some GATT rules and experiences. For example, we interpret the GATT escape clause, under which a government can temporarily raise its level of protection if it

faces a surge in imports, as a safeguard provision that works to maintain cooperation within a self-enforcing agreement when the market environment is volatile. We also describe work that emphasizes enforcement limitations and interprets the gradual manner in which tariffs have been liberalized over the GATT/WTO's five-decade history.

In chapters 7, 8, 9, and 10 we further extend the basic model and consider four new trade-policy issues that currently face the WTO. We begin in chapter 7 with an evaluation of the potential implications of preferential trading agreements for the multilateral trading system. Preferential trading agreements, which take the form of free-trade areas or customs unions, are permitted under GATT Article XXIV as an important exception to the principle of nondiscrimination. In recent years preferential trading agreements have grown in number and significance. We frame our discussion of this topic around two questions. First, do preferential trading agreements compromise the effectiveness with which the principles of reciprocity and nondiscrimination can deliver efficient outcomes? Second, when WTO members are involved in preferential trading agreements, does the enforcement of multilateral trading agreements become harder or easier? After reviewing the literature, we answer the first question in the affirmative, while we suggest that the answer to the second question is ambiguous. At a general level, we thus conclude that preferential trading agreements may pose a threat to the existing multilateral trading system.

In chapter 8 we raise the issue of labor and environmental standards. This issue probes the limits of the ability of the WTO to promote global efficiency while respecting national sovereignty. Existing GATT/WTO rules speak to this issue only to the extent that market-access concerns are directly involved, as when one WTO member raises discriminatory tariffs against the exports of a second WTO member in response to the weak labor standards of the second member, or when a WTO member adopts a new environmental standard that has the effect of reducing access to its markets that another WTO member had previously negotiated. The national labor and environmental standards that member governments choose to adopt have never been the subject of direct GATT/WTO negotiations, but there is mounting pressure for this to change. A number of industrialized countries (with the United States taking a leading position) have recently advocated the adoption of a "social clause," in which a set of minimum international standards would be negotiated and then enforced with the threat of trade sanctions. Is the GATT/WTO's traditional preoccupation with market

access misplaced when the issue of labor and environmental standards is raised? Should WTO member governments embark on negotiations within the WTO over their national labor and environmental standards? Should the WTO's limited enforcement ability be utilized to ensure that national labor and environmental standards are set in an appropriate fashion? We describe a literature that identifies conditions under which the answer to the first two questions is no and the answer to the third is a qualified yes. The broader suggestion is that GATT principles are potentially well-equipped to handle the issue of labor and environmental standards.

In chapter 9 we consider competition policy. The links between competition policy and the effectiveness of international agreements to liberalize trade have long been thought to be important. However, the GATT rules that apply specifically to restrictive business practices are quite limited, and introducing a more comprehensive set of competition policy rules into the WTO has recently received renewed attention. At an informal level, there are similarities between the issues raised by the existence of separate national competition policies of WTO member governments and the existence of separate national labor and environmental standards. It therefore might be conjectured, in analogy with the discussion of labor and environmental standards just above, that the GATT/WTO's traditional focus on market access could serve an important role in ensuring appropriate competition policy choices by its member governments. But, at a formal level, a discussion of competition policy must account for the existence of imperfectly competitive firms, raising the possibility of additional international externalities that could render a focus on market access inadequate. In chapter 9 we extend the basic model to allow for the presence of imperfectly competitive firms so that the links between competition policy and the effectiveness of international agreements to liberalize trade can be formally explored. And we argue that the analogy between labor/environmental standards and competition policy holds, at least in the important area of competition policy that deals with mergers: in principle, the traditional market-access concerns of the GATT/WTO can be harnessed to ensure that the independently chosen national merger policies of member governments are set in an appropriate fashion.

Next, in chapter 10, we consider agricultural export subsidies. The treatment of export subsidies in the GATT/WTO is perplexing and controversial. The official GATT rule is that export subsidies are pro-

hibited; however, important exceptions exist. In particular, GATT has historically accommodated a range of export subsidization programs that is directed toward agricultural industries. The appropriate GATT policy toward agricultural subsidies emerged as a central point of conflict between the European Community and the United States in the most recent GATT round (the Uruguay Round), and the tension that surrounded this issue quite nearly derailed the entire round. How is the GATT/WTO policy toward export subsidies to be understood? We offer an interpretation in chapter 10. Our analysis suggests that the ongoing conflict regarding agricultural export subsidies can be interpreted from the standpoint of the strategic-trade literature, even though agricultural markets have competitive characteristics. More broadly, we conclude that the GATT rules against export subsidies in fact may represent a victory for exporting governments at the expense of importing government—and world—welfare.

Many economists are skeptical as to the practical relevance of the terms-of-trade approach to trade agreements. At the same time, in our attempt to interpret and evaluate the GATT/WTO in this book, we give primary emphasis to this approach (with modifications for political considerations). It is therefore important to consider directly some of the theoretical and empirical objections that are made against the terms-of-trade approach. In chapter 11 we describe these objections, and we argue that upon closer scrutiny, the objections are less compelling than they might originally appear.

We conclude in chapter 12. In this chapter we summarize the main lessons developed in the book, and we also propose new directions for future research.

A question that arises at the outset of this book is whether GATT rules that appear to be sensible from an economic perspective were, in fact, designed with this purpose in mind. There seems to be no presumption that evolutionary forces would select international institutions that deliver the best outcomes and whose features can therefore be interpreted “as if” they were designed to solve particular problems. So to the extent that GATT rules do appear sensible from an economic perspective, this may reflect wisdom, learning, or pure serendipity. Nevertheless, we may interpret and evaluate these rules with an open mind, and in this way identify the problems that GATT rules do seem well designed to address, without necessarily determining whether or not this design was purposeful. This is the approach we take throughout the book.