

**Trade and Conflict:
Uncertainty,
Strategic Signaling,
and Interstate Disputes**

Arthur A. Stein

In *Economic Interdependence and International Conflict: New Perspectives on an Enduring Debate*, pp. 111–126. Edited by Edward D. Mansfield and Brian Pollins. Ann Arbor: University of Michigan Press, 2003.

Trade and Conflict: Uncertainty, Strategic Signaling, and Interstate Disputes

Arthur A. Stein

Arguments in Search of Data, Findings in Search of a Logic

That trade reduces conflict between states has been a tenet of liberal thought since its articulation in the late eighteenth and early nineteenth centuries. Classical liberals provided several lines of reasoning, however, and the historical record of the last two centuries undercuts some of their assertions, even as it provides a great deal of data with which to assess their central claim and their competing antecedent links. To this day, the relationship between trade and conflict remains mired in a host of conflicting logics and empirical results, and scholars have turned to arguing about data and specification rather than dealing with core analytic problems.¹

This chapter delineates some truths about trade and conflict that pose problems for many arguments made in the literature. Typically, trade is treated as an independent variable that reduces the incidence of conflict. Yet trade is itself endogenous to political calculations and decisions. That is, interstate cooperation and conflict affect trade. Second, most formulations presume trade to facilitate conflict avoidance. Yet we know that trade generates conflict and that states use trade as an instrument of coercion. Thus, blithe assertions that trade reduces conflict ignore both the cooperative bases of trade and the tensions and conflicts created by it. They also ignore that trade is a tool of statecraft, used both as carrot and stick.

This chapter then constructs an alternative argument about trade and conflict, one that both incorporates what is known about trade and roots it in

a broader theory of conflict. In contrast, most extant logics linking trade and conflict depend simply on a presumption of relative cost, arguing implicitly that trade increases the costs associated with conflict and thus should reduce its incidence at the margins.² The line of reasoning developed here embeds the impact of trade in a broader theory of the causes of conflict and the conditions for cooperation. Yet the chapter suggests remaining flies in the ointment for this argument, as well, and discusses why finding any relationship between trade and conflict is inherently problematic.

The reasoning developed here is that the coercive potential of trade is the basis of any empirical finding that it reduces conflict. Trade reduces the escalation of political disputes and thus the incidence of militarized disputes because trade both increases the costs of conflict and gives states a set of coercive instruments with which to signal their commitment in any political dispute. It thus reduces both the occurrence of political crises and the need for militarized actions once they arise.

The chapter begins by delineating the endogeneity of trade by laying out its cooperative bases. Next, the chapter explains that linking trade with reduced conflict is problematic because trade both generates disputes and is used as a coercive instrument of statecraft. Third, the chapter develops a signaling argument that is consistent with these realities of trade and with a general theory of conflict. This section also discusses the problems in developing a strategic-interaction argument linking trade and conflict. Fourth, the chapter discusses the different units of analysis in trade and conflict and the need for an analytic link between society and state in order to have a complete theory.

Cooperative Bases of Trade

The first problem with the argument that trade reduces conflict is that trade is not exogenous. Rather, trade itself reflects interstate cooperation and conflict. Intergovernmental agreement is a prerequisite for trade. Moreover, governments sometimes encourage trade with specific countries for political purposes and use a variety of levers to affect trade levels. Finally, private traders incorporate political considerations into their decisions. For all these reasons, trade levels already reflect and embody cooperative relations between states, and this must affect any assessment of the independent effect of trade upon cooperation and conflict.

Trade Agreements

Trade presupposes cooperation between countries. Excepting smuggling, trade between countries requires some minimal degree of interstate cooperation—

that of trade agreements between countries. In the last two centuries, little trade has developed without such agreements, which resulted from political decisions of governments.

Classical bilateral trade agreements allowed trade in specific goods at some nonprohibitory tariff rate. This made possible some trade in a mercantilist world with many trade prohibitions. But the classical liberals railed against such trade agreements as mercantilist in character, allowing both trade barriers and trade discrimination. The mechanism used to liberalize trade on a nondiscriminatory basis was the insertion of a most-favored-nation (MFN) clause in bilateral trade agreements. In this way, states assured one another that any tariff reductions they extended to others in any subsequent trade agreements would automatically be extended to any nation with most-favored-nation status. The use of MFN clauses led to the adoption of two-tier tariff schedules. The high, typically prohibitory, tariff schedule applied to all nations with whom there was no MFN agreement. The lower tariff rates applied to those with which the nation had negotiated trade agreements with MFN clauses.³

MFN clauses were thus a mechanism by which to allow trade within a club (a subset of nations linked by trade agreements with MFN clauses) while effectively excluding it with nonmembers.⁴ Thus, trade in most items, even nonstrategic ones, with the Soviet Union and China during the Cold War was not viable without an MFN agreement.⁵

In addition to discriminating among states by signing trade agreements and by the extension of MFN status, states also negotiate specific preferences for specific countries in specific categories of goods. Governments can and do negotiate country-specific preferences intended to channel trade toward specific politically more important countries.⁶ Hence, trade flows, at least to some degree, reflect the political interests of countries.

Channeling Trade

Trade is undertaken by private actors, and although governments can choke it off by erecting barriers they have a more difficult time making it flow. Government policy is thus asymmetric. It can bring trade to a halt, but it cannot determine trade. Yet governments have some instruments at their disposal to direct trade.⁷ Governments can open the tap by reducing trade barriers, selectively opening the tap in some sectors and not others and for some countries and not others. They sign trade agreements with some countries and not others, and they distinguish between least and most favored nations. And although they cannot determine trade levels themselves, they can encourage and channel them.

States channel trade toward specific countries, for example, by subsidizing some exchanges and not others. Countries often provide trade financing and subsidized insurance for some international transactions.⁸

States channel trade to specific other countries for political reasons (Skålnes 2000), including the need to solidify alliances as well as to signal commitment.⁹ They are interested in solidifying alliances, for example, by both economically strengthening their allies and signaling to prospective enemies their commitments to defend their allies and clients. In the deterrence literature, the empirical findings suggest that trade ties do indeed deter (Huth and Russett 1984).

Finally, trade is itself affected by interstate cooperation and conflict even without direct governmental intervention. Traders as well as foreign investors prefer stability and eschew conflict. Although spot markets may be immune from such considerations, long-term commercial links depend on continuity and stability. Indeed, liberalizing (if not liberal) politicians, aware that investment, commerce, and wealth depend upon international tranquility, work to resolve existing foreign conflicts as part of their domestic strategy for economic growth and development (Solingen 1998).

Conversely, countries that are rivals or enemies purposely constrict trade between themselves. Such relationships embody closure, sanctions, embargoes, and the like. During the Cold War, even as the United States liberalized trade with its allies, it simultaneously controlled trade with the Soviet Union (Stein 1984).

In summary, trade levels already reflect political relations. The role of governments in determining trade flows must be reflected in any attempt to infer the political consequences of trade. Any statistical relationship between trade levels and conflict may reflect not the conflict-reducing implications of trade but the political underpinnings of trade in the first place. Any assessment of the political consequences of trade must deal with its political roots.

Trade, Conflict, and Coercion

The second fly in the ointment for the argument that trade reduces conflict is that trade often creates conflict. States also use trade as an instrument of coercion, both by threatening trade disruption and imposing trade sanctions.

The argument that trade reduces conflict by making it more costly necessarily implies that trade reduces the incidence of all disputes that carry the cost of reduced trade. This argument is problematic. First, such a line of reasoning should generate robust empirical results across an array of data sets of international conflict. All kinds of conflict, not just militarized interstate disputes

(MIDs), should be reduced given this simple causal formulation. There is no analytic logic to limiting the domain of effect simply to MIDs. Second, the existence of trade disputes and trade wars poses a general problem for this simple logic. That trade raises the costs of conflict has not prevented states from purposely disrupting trade as part of their disputes with one another.

Trade as a Cause of Conflict

Trade relationships embody and generate conflict. Growing levels of international commerce are the basis for trade disputes. Initially, political conflicts over trade emerged when countries had to renegotiate tariff-reduction agreements or when they dumped underpriced goods. As tariffs have declined dramatically and their levels need not be regularly renegotiated, conflict has emerged over a whole array of incongruent domestic practices that are the basis of charges of unfair trade (Stein 1993).

The historical record is replete with trade wars (Conybeare 1987) and trade disputes, and these arise only among countries with extensive commercial ties that are, typically, politically close. It is striking that during the Cold War, the United States and its allies engaged in numerous commercial disputes even as they strove to sustain a military alliance of great strategic importance. Thus, despite overwhelming strategic imperatives and close political ties, trade nevertheless became the basis of conflict.¹⁰

The critical implication is that trade disputes presuppose trade. Trade disputes do not arise between nations that do not trade with one another. And the growth of trade between countries generates trade frictions and disputes.

Trade as a Coercive Instrument of Statecraft

Trade has, moreover, been used as an instrument of coercion. Again, the historical record is filled with cases of economic sanctions of various kinds undertaken in pursuit of political rather than economic objectives (i.e., as opposed to trade wars undertaken to deal with solely commercial conflicts). Countries with extensive economic links have been prepared to cut such ties to compel a change in others' policies.

The very existence of trade provides states with a tool they would not otherwise have when disputes arise. They can and do impose economic sanctions of various kinds to get others to shift course.

Further, the prospect of sanctions affects state decisions. When markets are not deep and competitive, states can become quite dependent on particular

buyers and sellers and vulnerable to the exercise of trade coercion. Indeed, the centrality of certain goods to an economy can lead governments actively to prevent the development of trade dependence. The United States pursues a policy of energy independence despite the fact that the states on which it is dependent are political allies. It also reacts adversely to politically induced price fluctuations absent any effort at political extortion.

In short, economic sanctions, a form of interstate conflict, presuppose the existence of a prior trading relationship. Clearly, trade generates neither such levels of cooperation nor such aversion to conflict as to preclude either commercial disputes or the use of economic coercion for political objectives. The use of trade sanctions as instruments of coercion implies that trade does not preclude conflict and does not necessarily lead to cooperation. Moreover, in such cases, states are prepared to absorb the costs of trade disruption and to do so in a political dispute that has yet to be militarized.

Trade can be both a source of conflict between states and a casualty of coercive diplomacy in interstate disputes. Trade in no way guarantees a pacific world.

The challenge for any coherent and complete theory of the political consequences of trade is to incorporate these realities of trade into a causal logic linking trade and conflict. One implication of the foregoing discussion is the need to specify clearly the dependent variable. One reason for conflicting hypotheses and empirical results is an inadequate specification of the dependent variable, whether trade reduces all forms of conflict or only militarized disputes. Hypotheses linking trade and conflict simply have to be precise both in the selection of a dependent variable and in its link to the underlying analytic argument.

Unraveling the Trade-Conflict Nexus

The challenge for ascertaining the link between trade and conflict is to embed it in a broader theoretical framework in a way that is consistent with what is known about trade. First, the impact of trade on interstate conflict should relate to a general theory of conflict. Second, it should recognize that trade generates conflicts of interest and that trade sanctions are used as coercive measure in interstate disputes.

Such an argument is developed here, and it provides an explanation for how trade may simultaneously increase disputes between nations yet provide them a means to resolve them at a lower level of interstate conflict. In the analytic logic provided subsequently, regardless of whether trade reduces the propensity for political disputes among states, it nevertheless reduces the chances that political conflicts will escalate to the level of militarized disputes. It does this

precisely because of the ability to use trade coercively to signal resolve and commitment in an interstate conflict. This would also explain why empirical studies using different data sets come to conflicting empirical conclusions.

Trade as a Political Signal

In any strategic-choice setting, costly conflicts should not occur. When conflicts are costly to all parties, actors are invariably better off moving to the postconflict outcome and not incurring the costs of conflict. A classic economic problem is that of explaining strikes. After all, workers and employers are interested in continuing their relationship but want to renegotiate the terms of the employment relationship. A strike is costly to both, and both are better off going directly to the outcome that would be negotiated given a strike but doing so without incurring the costs of a strike. Similarly, states would be better off going directly to a postwar settlement without incurring the intervening costs of conflict. Wars and strikes thus pose comparable problems to a model of strategic choice built on rational calculation.

The explanation for the occurrence of costly conflict is that actors have private information about their resolve and have no credible way to signal that to others short of incurring the costs of conflict. What emerges is a view of military engagements as rooted in informational asymmetries and incomplete information in which the dynamics of bargaining and even conflict are about demonstrating resolve and signaling commitment.¹¹ Such militarization can be avoided through costly signaling.

In such a setting, trade plays an important role in interstate relations. Assume that conflicts of interest arise between states irrespective of their trading relationship. Minimally, we know from both the existence of trade disputes and the use of trade sanctions that states that trade with each other still get into conflict. Additionally, conflicts of interest arise between states that do not trade with each other. Indeed, the absence of trade in such cases may itself reflect an underlying political hostility that may lead to periodic crises.

When conflicts of interest arise, states look at the range of instruments they have to signal their concerns and the intensity of their preferences. Moreover, in such settings, talk is cheap, and costly signaling is one mechanism to evince commitment and resolve. In relationships in which there is some trade, economic sanctions are an intermediate step between mere diplomacy (typically symbolic and verbal) and military measures. States often resort to economic sanctions prior to military actions because they are less confrontational and do not run the risk of accidental war that militarization may carry.

In conflicts of interest in which there are no economic links, states have lit-

the choice between mere diplomacy and military steps. Military measures short of war are then coded as militarized interstate disputes.

But where economic measures are available whether used or merely threatened, they will be sufficient in some cases to signal resolve and avert a more militarized dispute.¹² Moreover, even when economic measures are not sufficient, if the crisis continues for enough time, the turn to the military would occur at a time of reduced trade between the parties.

The prospect of trade disruption as a signaling device would then explain the existence of an inverse relationship between trade and conflict, one based on an alternative logic to that typically offered in the literature. Higher levels of trade are associated with lower levels of militarized disputes because trade provides a mechanism for costly signaling short of military measures. In some cases, lower levels of trade are associated with militarized disputes both because the parties have little or no trade and because, in other cases, the use of economic sanctions has substantially reduced the trade by the time of the emergence of the militarized dispute.

Trade then does not reduce conflict; it provides an instrument of statecraft short of military action. It is the very coercive potential of trade sanctions that exists in states with commercial links that provides the opportunity to avoid militarized disputes.¹³

This argument integrates the trade-conflict finding in a broader argument about the basis of war. That is, militarization and war occur because of private information and an inability credibly to signal one's interests and the intensity with which they are held. Trade provides a mechanism for sending a costly signal and revealing private information short of using the military.

This argument can be assessed by using more than the militarized dispute data set as the dependent variable and linking it with broader international conflict and cooperation data sets, especially ones that capture economic coercion. Moreover, the argument could be assessed by treating the costly signal itself as a variable and using information on the trade relationship to measure the costliness of steps taken or threatened. The opportunity costs of closure with respect to a specific trading partner would capture the costliness of the signal of a prospective or actual trade embargo.

Trade as Signal and the Failure of Economic Sanctions

The problem with this argument is that the utility of economic sanctions by states in their political disputes is unclear. Indeed, there is a large literature sug-

gesting that economic sanctions are often ineffective instruments of political coercion. But even as scholars of economic sanctions argue that they are often politically ineffective, scholars in the trade-conflict literature argue that trade reduces conflict. Somehow, the fear of an economic break is sufficient to reduce interstate conflict, but the actual use of economic sanctions is ineffective.

There is something problematic about arguing that the anticipation of trade disruption and its costs leads states to eschew conflict and military measures even while the actual use of economic sanctions is held to be ineffective. Indeed, the reasons why sanctions are ineffective pose problems for the trade-conflict literature. Sanctions are ineffective because sanctioning states rarely have market power, and competing buyers and sellers undercut the effectiveness of unilateral sanctions. But this should prove true for assessments of trade relationships and concerns about trade disruption, as well. In a competitive marketplace, absent market power by specific actors in specific goods, trade should have no political consequences at all. Political calculations can be made without thinking about trade. The disruption of bilateral links by any interstate dispute simply leads to trade diversion.¹⁴

Trade diversion undercuts not only the effectiveness of bilateral sanctions but also the costliness of the signal they send. In a competitive market, alternative buyers and sellers are available to both parties whose trade links have been severed.

The costliness of trade signals (as well as the viability of sanctions) are determined by the nature of market power and the costs of adjustment. This suggests that trade ties must be disaggregated and assessed industry by industry. Market power may exist in some sectors, such as oil, and not in others. The sectors in which market power exists may or may not be of strategic importance, they may or may not be highly inelastic, and their use may or may not be widespread.

The important point is that sanctions constitute costs to the sanctioning state. One can even imagine cases in which *the sanctioned state experiences little pain but the sanctioning state does* and in doing so sends a message costly to itself but not to the sanctioned state.

As a side benefit, the use of trade sanctions as signals suggests a different basis for assessing the effectiveness of sanctions. Sanctions are effective not only when they lead to policy change. First, sanctions can send costly signals that may deter third parties and prevent escalation. Second, sanctions may make it possible to avoid escalation to a militarized dispute. Thus, even when

sanctions do not function as costly signals that lead to a ready resolution of the dispute, they can ameliorate conflict by providing an acceptable basis for waging a dispute without militarizing it.¹⁵

Trade, Strategic Interaction, and the Problem of Anticipated Reaction

Another problem with a costly-signaling argument of trade and conflict is that the trade links between states are known and strategic interaction is inherently built on the logic of anticipated reaction. The arena of international relations is quintessentially one of strategic interaction. States make decisions in interaction with specific others whose choices they are interested in affecting and whose responses must be anticipated and incorporated in decisions. International conflict and cooperation, especially in bilateral relations, are the product of a strategic calculus. Assessing the impact of trade on international conflict requires incorporating trade into such a calculus.

The key insight of formal work in strategic interaction is that actors calculate and anticipate reactions to their strategic choices. Actors anticipate others' actions and reactions, and steps both taken and avoided reflect a calculus of expectations. The logic of anticipated reaction creates major problems for empirical work and assessing the implications of what is actually observed. Trade is known and observable to the parties prior to any conflict. Conflict exists *in the shadow of trade*.¹⁶ A state calculating the initiation of some conflict anticipates its trade partners' possible reactions and its own response and so on. The trade costs absorbed by the initiator may make it less willing to initiate a dispute. But the initiator is also aware that the trade costs of conflict will also make the responder more reluctant to sustain the dispute, and this emboldens the initiator. The trade link thus has the simultaneous affect of dissuading and emboldening an initiator to a dispute, and there is no basis for inferring which effect is systematically stronger (Morrow 1999, this volume). The result should be that trade links have no net affect on the initiation of disputes.

The strategic-interaction view of conflict is that it is driven by information asymmetry between the parties, information available to one party that is not known by the other and cannot be credibly revealed short of conflict itself. Conflict is thus a product of uncertainty, and what reduces conflict works through its impact on uncertainty. The amount of trade between countries is known, as is its composition. In addition, states know the market conditions for different products and industries and thus the availability of alternative buyers and sellers. Any decision to become involved in conflict already reflects what is known about trade and anticipates the reactions of others. *Conflict is*

*thus in the error term.*¹⁷ In such circumstances, any empirical relationship between trade and conflict simply captures the uncertainty in the relationship. Trade may reduce conflict because it captures the degree of uncertainty in the relationship: higher levels of trade are associated with greater certainty in the relationship between states, and lower levels of trade are associated with greater uncertainty.

Wealth, the State, and Society

The foregoing discussion has largely been built on a unitary-actor view of states, although it recognizes that trade and conflict constitute choices by different actors. But a complete model linking trade and conflict must deal with the disjuncture in units of analysis between the phenomena in question. Trade is, in most places and at most times, carried out by private actors, firms, and individuals and reflects societal supply and demand conditions. Conflict is an interstate phenomenon, carried out by governments. Any link between conflict and trade must, therefore, confront the relationship between state and society and how societal interactions become translated into state actions.¹⁸

The relationship between state and society as regards trade is asymmetric. States control cross-border flows and make trade possible. Getting rid of barriers does not determine flows, however. As argued previously, states do channel and shape the nature of cross-border flows through a host of public policies. Yet states vary in their involvement in the private economy: some states control enterprises, others do not, and even liberal states vary tremendously in their degree of intervention in the private economy. States thus vary in the extent to which they determine the flow of goods and services between them, with few cases at either extreme of complete control of trade or complete lack of control of trade.¹⁹

Moreover, states cannot be assumed to reflect the interests of private commercial actors, nor can private actors be presumed to reflect the interests of the state. This is implicit in the use of economic sanctions by governments.

That states need to impose sanctions implies that private traders do not by themselves eschew commercial transactions with states with whom their government has political disagreements. States not only impose sanctions but also monitor them and punish cheaters. This implies that, at least to some degree, private actors are willing to exchange with citizens of other countries even in the context of political disputes. Private traders may follow the flag, but once there they do not necessarily modulate their commercial activities to the ups and downs of political relations.

The disconnect between the interests of traders and those of governments also implies that the preferences of those engaged in foreign commerce do not necessarily get smoothly translated into public policy. Just as governments override commercial concerns in imposing sanctions, they also override commercial considerations by getting into political disputes with states with whom they engage in substantial commerce. This disjuncture between state and society must itself be addressed in any argument linking trade and conflict.

A comparable problem exists as regards the sensitivity of states to material concerns. The political consequences of trade presume governmental concern with material conditions. Trade disruptions and their social and economic consequences are presumed to have political effects. Here, too, there is variation across states over both time and space. A marginal-cost argument implies that the relationship between trade and conflict should not be a historical constant but should vary as a function of the importance of wealth considerations in calculations of the national interest. Modern governments, autocratic as well as democratic ones, are more sensitive to the implications of public policy for national wealth. In contrast, nineteenth-century democratic politicians were insulated from such pressures because of the belief in a natural cycle of boom and bust, which government was powerless to affect. And at any time, variations in political systems make some governments more impervious to fluctuations in material wealth.²⁰ Yet in the final analysis, most international relations scholars would concur that security dominates material wealth as a concern for states, with wealth growing in importance as security is assured.

That the trade-conflict relationship depends, to some degree, on presumed state-society links suggests variation in the relationship over time, across political systems, and across circumstances. Not surprisingly, the estimated relationship is sensitive to different temporal domains and the inclusion or exclusion of different states.

Trade and Conflict

The relationship between trade and conflict is beset by flies in the analytic ointments. The search for any relationship will have to incorporate the realities of trade: that it reflects state policy as well as being used as an instrument of coercion, that even as it can be turned off by states its levels and composition reflect societal interests and not necessarily governmental ones, that its political implications have varied across political systems and with time, and that market power varies across actors and sectors. More broadly, what is argued in the trade and conflict literature must be consistent with findings on the implica-

tions of trade for deterrence and with those on economic sanctions. In addition, any relationship between trade and conflict will perforce have to depend on a logic of strategic interaction and will thus have to confront the problem of anticipated reaction and the fact that conflict in such models derives from informational asymmetries and uncertainty. Finally, to get out of the current morass of incompatible findings that are specific to particular databases, time periods, coding rules, and specifications and controls, statistical estimation will have to reflect the analytics, and the facts, and be carried out at a less highly aggregated level.

NOTES

My thanks to all the participants in the September 2000 Conference on Trade and Conflict held at the Mershon Center, the Ohio State University. My thanks to Jana Von Stein for research assistance and to the UCLA Academic Senate for research support.

1. For my review of the literature, combining a historical with an analytic overview, see Stein 1993.

2. Even this marginal-cost argument implies that the relationship between trade and conflict should not be a historical constant but rather vary as a function of the importance of wealth considerations in calculations of the national interest (see the discussion following). For a discussion of the problem with the relative-cost argument, see Gartzke this volume.

3. I discuss the importance of the MFN clause as an element of institutional design in Stein 1984, 1990; and in Rosecrance and Stein 2001.

4. For a discussion of international politics as involving overlapping clubs, see Rosecrance and Stein 2001.

5. The United States, for example, which has negotiated away its tariffs in many categories, still applies the astronomical Smoot-Hawley tariff rates to nations without MFN status. Indeed, all the agreements to reduce U.S. tariffs were relative to the Smoot-Hawley rates; thus, without MFN, trade in most items was not commercially viable.

6. Skålnes (2000) demonstrates how preferential arrangements reflect political need. For the impact of trade preferences on trade see Mansfield and Bronson 1997.

7. That trade reflects government support and encouragement is discussed by Mastanduno (this volume).

8. The U.S. government, for example, has an export-import bank for such purposes.

9. For macroassessments of the political bases of trade ties, see Gowa 1989, 1994; and Gowa and Mansfield 1993.

10. Although the discussion here is about trade disputes between major economic powers, this point extends to trade disputes between countries with asymmetric trade

relationships. States have used trade policy to foster economic dependence and thus political control. The classic work analyzing this is by Hirschman ([1945] 1980).

11. I have discussed this in Stein 1982, 1990. For a recent formal treatment, see Fearon 1995. For a similar argument, see Gartzke this volume.

12. The signaling argument about trade and conflict is made by Papayoanou (1996, 1997, 1999). The argument developed here is the converse of his. He argues that economic interdependence generates domestic interests that, operating through domestic institutions, undercut the ability of status quo states to deter revisionists. The argument developed here is a statist one and emphasizes the coercive signaling potential of trade sanctions.

13. A comparable argument is made by Rosecrance (1999) regarding foreign investment. Rather than the classical liberal argument that suggests that foreign direct investment (FDI) creates mutual interests in avoiding conflict, Rosecrance argues that FDI creates hostages and thus assures interstate cooperation.

14. Just as economic integration can lead to trade diversion without trade creation, so economic sanctions can lead to trade diversion without any trade destruction.

15. There is a domestic politics variant of this argument in which sanctions are effective in that they allow political elites to respond to domestic pressures to express a country's displeasure with others without having to take steps that risk military confrontation.

Sanctions are often used in cases in which they are bound to fail. They are typically used to compel rather than deter, to convince another state to undo an action already taken. Cases of successful compellence short of war are hard to come by, even using military measures short of war. Thus, it is not surprising that sanctions do not succeed; they are used when deterrence has already failed. It is also not surprising that they are used in such cases as an alternative to military steps, which might lead to escalation in a context in which any action short of war is unlikely to generate the desired policy change.

16. This play of words is intended to get across the point that trade is known and that all interactions occur in the knowledge of trade relations and the costs of their rupture.

17. This play on the title of an article (Gartzke 1999) is meant to get across the point that it is conflict in general, and not just war, that should be in the error term in any rational model in which conflict is costly; anything known should already be incorporated in a bargaining calculus that should result in the avoidance of conflict.

18. I develop this at length in Stein 1993. This aspect of the trade-conflict relationship is developed in Papayoanou 1999; Skålnes 2000; and Simmons this volume. Hess (this volume) builds an argument based on one particular state-society linkage. The problem also bedevils Marxist-Leninist arguments, which then rely on the argument that politicians are the ruling committee of the bourgeoisie.

19. Statistical estimation of the trade-conflict relationship should therefore include state-society relations as a variable rather than treat them as fixed.

20. This is also a reason why sanctions have been deemed to fail. Nowadays there is

a recognition that sanctions hurt societies without comparably hurting governments and without affecting government policy.

REFERENCES

- Conybeare, John A. C. 1987. *Trade Wars: The Theory and Practice of International Commercial Rivalry*. New York: Columbia University Press.
- Fearon, James D. 1995. Rationalist Explanations for War. *International Organization* 49:379–414.
- Gartzke, Eric. 1999. War Is in the Error Term. *International Organization* 53:567–87.
- Gowa, Joanne. 1989. Bipolarity, Multipolarity, and Free Trade. *American Political Science Review* 83:1245–56.
- . 1994. *Allies, Adversaries, and International Trade*. Princeton: Princeton University Press.
- Gowa, Joanne, and Edward D. Mansfield. 1993. Power Politics and International Trade. *American Political Science Review* 87:408–20.
- Hirschman, Albert O. [1945] 1980. *National Power and the Structure of Foreign Trade*. Reprint, Berkeley: University of California Press.
- Huth, Paul, and Bruce Russett. 1984. What Makes Deterrence Work? Cases from 1900 to 1980. *World Politics* 36:496–526.
- Mansfield, Edward D., and Rachel Bronson. 1997. Alliances, Preferential Trading Arrangements, and International Trade. *American Political Science Review* 91:94–107.
- Morrow, James D. 1999. How Could Trade Affect Conflict? *Journal of Peace Research* 36:481–89.
- Papayoanou, Paul A. 1996. Interdependence, Institutions and the Balance of Power: Britain, Germany, and World War I. *International Security* 20:42–76.
- . 1997. Economic Interdependence and the Balance of Power. *International Studies Quarterly* 41:113–40.
- . 1999. *Power Ties: Economic Interdependence, Balancing, and War*. Ann Arbor: University of Michigan Press.
- Rosecrance, Richard. 1999. *The Rise of the Virtual State: Wealth and Power in the Coming Century*. New York: Basic Books.
- Rosecrance, Richard, and Arthur A. Stein. 2001. The Theory of Overlapping Clubs. In *The New Great Power Coalition*, ed. Richard Rosecrance, 221–34. Carnegie Commission on Preventing Deadly Conflict. Lanham, MD: Rowman and Littlefield Publishers.
- Skålnes, Lars S. 2000. *Politics, Markets, and Grand Strategy: Foreign Economic Policies as Strategic Instruments*. Ann Arbor: University of Michigan Press.
- Solingen, Etel. 1998. *Regional Orders at Century's Dawn: Global and Domestic Influences on Grand Strategy*. Princeton Studies in International History and Politics. Princeton: Princeton University Press.

- Stein, Arthur A. 1982. When Misperception Matters. *World Politics* 34:505–26.
- . 1984. The Hegemon's Dilemma: Great Britain, the United States, and the International Economic Order. *International Organization* 38:355–86.
- . 1990. *Why Nations Cooperate: Circumstance and Choice in International Relations*. Ithaca: Cornell University Press.
- . 1993. Governments, Economic Interdependence, and International Cooperation. In *Behavior, Society, and International Conflict*, ed. Philip Tetlock, Jo Husbands, Robert Jervis, Paul Stern, and Charles Tilly, 241–324. New York: Oxford University Press, for the National Research Council of the National Academy of Sciences.