CONFLICT AND COOPERATION IN INTERNATIONAL ECONOMIC POLICY AND LAW

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1. INTRODUCTION

This essay explores a number of conceptual issues germane to the analysis of conflict and cooperation in international economic policy and law. It focuses on issues involving conflict and cooperation that are vital to international trade theory, particularly departures from the free trade optimum that is the centerpiece of the theory of comparative advantage and the gains from trade. This essay also considers situations stemming from departures from full employment and external balance, both concepts which figure importantly in international macroeconomic theory. The conclusion comments on the use of the Michigan Model of World Production and Trade in providing quantitative analysis of potentially conflicting and cooperative international economic actions and policies. While this essay is written from an international economic perspective, hopefully it is informative to international legal analysts and policy makers as well.

2. CONCEPTUAL ISSUES IN THE ANALYSIS OF CONFLICT AND COOPERATION IN INTERNATIONAL ECONOMIC RELATIONS

2.1. The Theory of Comparative Advantage and the Gains from Trade

The simplest version of the theory of comparative advantage and the gains from trade — the central focus of international trade theory — assumes the existence of two industries located in each of two countries existing in isolation (autarky), with perfect competition in all markets for goods and factors of production.[1]

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[1] *See* JAMES C. INGRAM & ROBERT M. DUNN, JR., INTERNATIONAL ECONOMICS 25-72 (3d ed. 1993) (explaining the theory of comparative advantage and the gains from trade).

The theory assumes the productivity of factors (e.g., labor and capital) employed in each country's industry to be different for unspecified technological reasons, resulting in different relative prices of the two goods under such conditions of autarky. This difference in autarky prices gives rise to the possibility of international specialization and mutually beneficial trade. Thus, each country engaged in trade specializes in the production and export of the good in which it has the greatest comparative advantage, or least comparative disadvantage, compared to the other country. Each country subsequently shifts factors of production towards the country's export industry and away from what will become its import-competing industry. The theory relies on perfect mobility of factors of production between industries within each country, but not between countries.

The assumption of perfect competition guarantees optimum use of factors of production since firms cannot control the price at which they sell their output, and thus will maximize their profits by producing up to the point where the marginal cost of production equals the given market price. The theory assumes that individual consumers have given preferences and act rationally in making consumption decisions with respect to both market prices imposed by manufacturers and budget constraints imposed by their incomes. As mentioned, factors of production move without friction between industries as firms expand or contract. Given the presumption of no barriers of entry and exit for firms and the domestic movement of factors, the primary role of government is to foster competition and maintain the social order. This "ideal" state of affairs emerges as firms and consumers pursue their self-interest. It is as if an "invisible hand" guides the process.

The concept and ideal of free trade has remained at the core of international trade theory for over two centuries. What is interesting for our present purposes is that unfettered international specialization and exchange maximizes welfare, and thus eliminates the issue of economic conflict. This should not be taken to mean, however, that international trade theory ends at this point. Rather, a great deal of attention has been devoted in the past half-century to the theoretical analysis of *departures* from the free-trade optimum.[2] International economic conflict figures importantly

[2] For a synthesis of literature dealing with departures from the free trade optimum and the design of policies to correct such departures, see Jagdish N. Bhagwati, *The Generalized Theory of Distortions and Welfare*, *in* TRADE,

in several cases involving nations' efforts to engage in exploitative behavior improving their own welfare at the expense of other nations' welfare. Let us consider the issues involved in analyzing various departures from the free-trade optimum.

2.2. Departures from the Free Trade Optimum

2.2.1. National Monopoly Power and the Optimum Tariff

The idealized assumptions of the classic argument for free trade imply the optimality of free trade only for the world as a whole. For individual countries, the optimality of free trade requires the additional assumption that the country is too small to have any influence, through its policies, over its trading prices. Without this assumption, free trade is not optimal from a national perspective. There exists instead an optimal degree of government intervention in trade, known as the optimal tariff, that works by turning the country's terms of trade in its favor.

One might think that this argument requires that the country in question be a large, industrialized country such as the United States. The size of the country as a whole does not carry as much significance, however, as the country's share of world trade in its export and import markets. Since many countries tend to specialize their exports in a fairly small range of goods — as the theory of comparative advantage predicts they should — even small countries may have enough market power over their export prices for the optimal tariff argument to apply.[3]

The optimal tariff argument involves a benefit for the intervening country only at the expense of the country's trading partners. Indeed, since free trade is optimal for the world as a whole, it must be true that the rest of the world loses more than the tariff-levying country gains.[4] A country attempting to take advantage of its monopoly power in trade creates a situation of

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BALANCE OF PAYMENTS AND GROWTH: PAPERS IN INTERNATIONAL ECONOMICS IN HONOR OF CHARLES P. KINDLEBERGER 69 (Jagdish N. Bhagwati et al. eds., 1971).

[3] An example would be the oil producing and exporting countries which, through the Organization of Petroleum Exporting Countries (OPEC), have sought to raise oil prices.

[4] That is, with an optimal tariff in place, *world* economic welfare must be lower as compared to free trade.

conflict with its major trading partners. The possibility of retaliation thus looms large in this setting, making it likely that all countries will lose if they simultaneously pursue this kind of policy. This suggests the presence of complicated and perhaps unsolvable strategic issues arising when one or more countries exercise national monopoly power in foreign trade. The more that governments realize the potentially damaging effects of optimal tariff intervention and retaliation, the more likely they might avoid taking such measures in the first place. Unfortunately, this does not mean that national governments will always recognize the potential losses from their actions, in which case the world will be made worse off.

2.2.2. *"Second-Best" Arguments for Government Intervention*

A crucial assumption underlying the classic gains-from-trade proposition is that all aspects of the domestic economy function properly, including: perfectly competitive domestic markets, freely-adjusting prices and wages, and the coinciding of private and social costs and benefits, which prevents positive and negative externalities or spillovers arising in production or consumption. If any of the foregoing conditions fail to hold, a "domestic distortion" exists, no longer assuring the first-best optimal results of free trade. Government intervention may therefore be necessary to correct domestic distortions and restore the first-best optimum.

Government intervention in trade, however, may not be the best policy to use when there are domestic distortions. Suppose, for example, that firms produce insufficient amounts of a good that confers a positive external benefit on society. An import tariff could be used to encourage domestic production, but this distorts consumer choice and reduces welfare because of the higher domestic price involved. In this circumstance, a production subsidy would be the best policy to use since it leads firms to increase their output of a good conferring positive social benefit while leaving consumers free to consume at undistorted market prices. The optimal, or first-best, policy is the one addressing the original distortion most directly. A tariff thus is second-best compared to a subsidy. By introducing two distortions rather than one, trade intervention may succeed in solving one problem, but only by causing another. In this respect, as this commentator and Alan Deardorff have remarked, trade policy is like "doing

acupuncture with a fork: no matter how carefully you insert one prong, the other is like to do damage."[5]

Similar examples are rife in the theory of protection. The classic example is the "infant industry" argument, where a tariff protects a young industry while it learns to be efficient.[6] The assumption here is that some market failure — such as an imperfection in the loan market or the impossibility of preventing new technical knowledge from being copied — makes it impossible for competitive firms to take advantage of what would otherwise be a profitable opportunity. A tariff or other import restriction can therefore make the operation profitable in the short run while the learning process is underway. Naturally, though, the success of such a policy depends crucially on a correct diagnosis of which industries offer the potential for such improvement over time. Political difficulties may also arise in removing protection once in place.

As in the case of the production externality discussed above, the infant industry argument may be valid. Some other policy, however, would be superior. Once again, a production subsidy equal in size to the tariff yields the same benefits to producers as the tariff without causing additional costly distortions to consumer choice. A better policy would subsidize or guarantee loans to the industry if the capital market was the real source of the distortion. A policy permitting firms to appropriate technology if necessary is another possibility.

Many other arguments for intervention can similarly be traced to the presumption of a distortion somewhere in the domestic economy. The need for a correct diagnosis of the distortions at issue and the realization that they could be better dealt with by means besides trade policies should be stressed in these cases. Most international trade economists accept this reasoning, but many practical policymakers trying to make only marginal improvements in the economic environment reject this argument. As long as some feasible policy works, they are unlikely to worry that another policy might work better.

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[5] Alan V. Deardorff and Robert M. Stern, *Current Issues in Trade Policy: An Overview, in* U.S. TRADE POLICIES IN A CHANGING WORLD ECONOMY 15, 39 (Robert M. Stern ed., 1987).

[6] *See* INGRAM & DUNN, *supra* note 1, at 148-51 (discussing the infant industry argument).

Thus, some argue that first-best policies are politically unacceptable and trade interference, though only second best in economic theory, may be first-best in terms of political reality. While perhaps true, this is a dangerous argument for several reasons. First, if trade intervention is politically more acceptable than domestic taxes and subsidies, it is probably because the electorate does not understand its true effects. If the public would not approve of a direct subsidy to an industry, for whatever reason, then that fact should serve as evidence that protection of that industry through trade intervention is also socially undesirable because of the resulting consumption distortions. Second, difficulties arise in determining whether the benefits of offsetting a domestic distortion exceed costs arising from the second distortion caused by trade intervention. Although precisely calculating costs and benefits of different policies is very difficult, substantial empirical evidence nonetheless suggests that the net effects of trade intervention are detrimental to welfare. A strong case can thus be made for using first-best policies. A final and important consideration is that reliance on first-best policies to correct domestic distortions avoids the potential for conflict between nations that trade intervention entails.

2.2.3. *Trade Intervention in Imperfectly Competitive Markets*

The recognition of imperfect competition in many markets, both domestic and international, has resulted in recent attention to analysis of trade and trade policy in an imperfectly competitive world.[7] The classical case for the gains from trade does not apply directly in such a world. A very clear understanding of the alternatives, however, does not yet exist. Instead, there are several suggestive ideas about the role of trade policy in particular situations that have not been established with any generality.

The first such idea seems to be the most important. If a domestic market is not competitive, countries can foster competition by removing barriers to trade. A major reason that a small number of producers dominate domestic markets is that these

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[7] Pioneering works in this area include ELHANAN HELPMAN & PAUL KRUGMAN, MARKET STRUCTURE AND FOREIGN TRADE: INCREASING RETURNS, IMPERFECT COMPETITION, AND THE INTERNATIONAL ECONOMY (1985) and ELHANAN HELPMAN & PAUL KRUGMAN, TRADE POLICY AND MARKET STRUCTURE (1989).

producers are protected from foreign competition by tariffs or other trade restrictions. If given a choice, producers for the domestic market will opt for quantitative import restrictions, since these increase their profit by monopoly pricing in the domestic market. The trade policy that best improves this situation does not require any subtle effort to offset the effects of monopoly power. Instead, a simple opening of markets to free international trade removes the market power itself and restores the benefits of competition. A domestic market with only a few firms may therefore approximate free competition if those firms must compete with a larger number of foreign producers. The removal of trade barriers in these circumstances accordingly removes a source of international conflict and promotes national and world welfare.

Unfortunately, even worldwide free trade does not assure the benefits of perfect competition in all markets. Some products are not as tradeable or readily available as foreign substitutes. Additionally, the world market itself may be imperfectly competitive, due perhaps to the historical dominance of a few firms or the nature of the product. Many products in today's international trade seem to lend themselves more and more to product differentiation and the use of large-scale and aggressive marketing techniques. In such cases, while free trade still increases competition, the imperfect nature of that competition no longer assures its benefits.

Two issues must be addressed. First, to what extent does the persistence of imperfect competition, even under free trade, undermine earlier arguments, particularly the belief that trade intervention constitutes only a second-best means of dealing with domestic distortions? Second, do imperfect market structures give rise to any new arguments for trade intervention?

The first issue cannot be answered definitively since no single model of imperfect competition provides the basis for a conclusive proof. Nonetheless, it can be established conceptually that the general principle favoring a domestic policy rather than trade intervention to remove a distortion continues to hold in cases of imperfect competition.

As for the second issue, free trade may fail to insure perfect competition even in traded goods if world markets are not perfectly competitive. If a firm has a monopoly or if several firms control world markets, and these firms earn excess profits at the

expense of either foreign or domestic consumers, trade intervention may benefit a country that can capture a larger share of these profits. This idea has considerable appeal. Certainly, if you must be exploited, it is better politically if domestic residents, not foreigners, are the exploiters. Even economically there may be a valid case for trade intervention.

Consider two possible cases. The first involves an effort to capture a portion of foreign monopoly profits by means of an import tariff. In this case, the importing country gains from the tariff only if the price paid to the foreign monopolist falls. The tariff works here much like the optimum tariff mentioned above in so far as it improves the importing country's terms of trade. As before, however, this profit-seeking policy creates conflict and does not guarantee success if the foreign government retaliates by taking measures to prevent or offset the shifting of profits abroad.

A second case involves the use of trade intervention to alter the outcomes of "strategic games" played by imperfectly competitive firms so as to increase the profits to be shared by them with their sponsoring governments. In effect, the government uses its policy to precommit firms to behavior that would otherwise appear to be — and known by their competitors to be — suboptimal. It turns out that theoretical models used in generating such results are rather fragile conceptually, so that changes in key assumptions negate or reverse the conclusion that profit shifting is possible. Furthermore, this case for intervention is once again exploitative and therefore may give rise to retaliation. Thus, if both governments were to try to play this particular game, both countries will be worse off. Again, to the extent governments desisting from exploitative measures recognize this harm, the scope for international conflict is reduced.

2.2.4. Countervailing and Strategic Intervention

However one may feel about the case for economic theory about free trade, the fact remains that countries do make extensive use of policies interfering with trade, perhaps for the reasons already discussed. This raises the question of whether the cases for and against intervention differs at all for countries whose trading partners use such policies.

There are two distinct rationales for responding to other countries' trade policies. The first reason is to neutralize, offset, or countervail the presumed adverse effects of a foreign country's trade policy. The other reason is to strategically discourage the

use of such policies by foreign countries by threatening or implementing policies affecting such countries adversely. The two approaches differ in terms of their goal. In the former case, the direct benefit of the domestic economy serves as the purpose of the policy. In the latter case, since the purpose of the policy is to alter behavior abroad, the policy might be chosen in spite of its adverse domestic effects. Countervailing intervention makes sense only if it benefits the domestic economy for its own sake. It is not enough that it partially undoes the effect of the foreign country's trade policy to which it responds.

The familiar example of this use of trade policy is the national and General Agreement on Tarrifs and Trade ("GATT")/World Trade Organization ("WTO")-sanctioned use of countervailing duties to offset the effect of foreign export subsidies.[8] This countervailing policy normally benefits the country using it, but only to the extent that the importing country is large enough to improve its terms of trade by imposing the duty. Such a country could have benefited from a duty even had there been no foreign subsidy, assuming that it could have avoided retaliation. The question then is whether the fact of the subsidy, together perhaps with the official sanctioning of a countervailing duty, reduces the likelihood of retaliation. Only in this case does it appear that the use of a countervailing duty is a responsible policy in a competitive environment.

If instead we have an imperfectly competitive world, governments can use subsidies to give country's producers a competitive edge in a foreign market. In this case, a countervailing duty of some sort may be an optimal response on the part of the importing country's government as it tries to balance the gain from cheaper subsidized imports against the loss of domestic firms' monopoly profit. This suggests the more general question of whether countervailing measures may be justified as a means of discouraging the use of export subsidies in the first place. Such a question requires a discussion of strategic intervention.

As mentioned above, a number of arguments suggest that trade intervention may benefit one country at the expense of others.

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[8] For further discussion of this example, see Michael J. Finger, *Subsidies and Countervailing Measures and Anti-Dumping Agreements, in* ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, THE NEW WORLD TRADING SYSTEM: READINGS 105 (1994).

Many of these arguments, relating especially to national monopoly power and use of the optimal tariff, have long been familiar to international trade economists. But interest in the analysis of trade under conditions of imperfect competition has expanded the scope of strategic intervention and led to new interest in the strategic issues of how countries may use intervention to exploit others and to keep from being exploited themselves. For the purposes of this essay, focus should rest on the question of how policymakers should act in a world of exploitative trade intervention.

In simple terms, the situation poses the classic "prisoners' dilemma," in which each player has an incentive to act at the other's expense, and both lose if both act. Although clearly optimal for them to collectively refrain from acting (intervening in trade), each has an incentive to depart from that optimum if it is ever reached. What is interesting, according to analyses by trade theorists[9] and political scientists,[10] is that *the greater the perceived likelihood that a government expects that its trade intervention will be retaliated against, the closer the solution lies to free trade.* This suggests that although trade intervention itself is harmful for reasons already discussed, it may nonetheless be desirable that countries expect intervention by other countries in response to their own actions.

Alternatively, one could attempt to pursue negotiated solutions to games such as that above. Such negotiations, however, pose the well-known problem of enforcing any agreement reached. On the other hand, incentives to enter into such negotiations are strong, even if one has no intention of abiding by their outcome. Therefore, it is not surprising that the trade policy community has managed to keep such negotiations going during much of the post-World War II era under the auspices of the GATT.[11]

2.2.5. Trade Intervention for Foreign Policy Reasons

The strategic uses of trade intervention just discussed focused

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[9] *See* Marie Thursby & Richard Jensen, *A Conjectural Variation Approach to Strategic Tariff Equilibria*, 14 J. INT'L ECON. 145-61 (1983).

[10] *See* ROBERT AXELROD, THE EVOLUTION OF COOPERATION (1984).

[11] For a comprehensive analysis of the results of the Uruguay Round, the eighth round of GATT multilateral negotiations which concluded in 1994, see WORLD BANK DISCUSSION PAPERS: THE URUGUAY ROUND AND THE DEVELOPING ECONOMIES (Will Martin & L. Alan Winters eds., 1996).

specifically on influencing analogous policies abroad. The use of trade intervention may also carry over to foreign policies having nothing to do with trade. Since countries depend on and gain from trade, policies interfering with trade can serve as weapons and can be used for a variety of aims. Still, one must ask whether trade intervention can succeed in changing foreign country policies and, if so, whether it is worth the cost.

To take the second issue first, trade as a political weapon makes sense only if it is capable of inflicting more harm abroad than any disruption it causes at home. This clearly would not be the case for a small country, but for a large country such as the United States, it seems likely that we could do rather severe damage to some of our smaller trading partners at relatively little obvious cost to ourselves. One must be very careful here, however, especially because markets often work far better than anyone expects. Even the United States might find that long-run effects of its policies may be counterproductive in ways difficult to predict. When foreign markets and foreign suppliers are lost, either because the United States accidentally hurts them more than intended or because they look elsewhere for a more certain trading environment, the United States' claim that it only manipulated trade to promote the general welfare falls on deaf ears.

There is also reason to doubt the effectiveness of even more draconian trade policies, such as embargoes, in changing the behavior of foreign governments and their constituencies. Trade can have powerful effects. When used as a weapon, these policies seem more likely to generate resistance, rather than fear, in the hearts of its victims. The world's considerable experience with the use of embargoes indicates a lack of success in drawing concessions from those they were intended to influence. On the other hand, trade policy might be more successful in influencing policies abroad if it is oriented toward providing positive, rather than negative, incentives in the political sphere. This is certainly worth exploring further.

2.3. International Factor Movements

The theory of comparative advantage and the gains from trade assumes that factors of production move without cost between industries within countries, but not internationally. While this assumption helps to clarify the role of trade and its impact on the

returns to factors of production, it is unrealistic in view of the often substantial movements of labor and capital from one country to another that actually occur.

For our present purpose, it is movements of real capital rather than financial capital that is important. Such movement of real capital constitutes foreign direct investment (FDI) by international firms. There is a large body of theory of the determinants of FDI, but its main motivation derives from the apparent profitability involved when the parent company internally controls the operations of foreign affiliates. FDI results in significant gains in economic efficiency and consumer welfare in both investing and host countries. In some circumstances, however, there may be costs as well. Conflicts may emerge as governments seek to regulate the investment activities of international firms. In host countries, for example, the belief that foreign firms can charge monopoly prices and thus earn excessive profits that they then transfer abroad may cause disputes. There may be complaints about the lack of adequate opportunity for indigenous workers to acquire skills and training, and the inability of the host country to acquire and independently develop foreign technologies. The host country may believe, furthermore, that foreign firms undermine the efficacy of host country economic policies and maybe even threaten their political sovereignty. As for investing countries, they may have their own concerns about the loss of jobs and technological benefits, including spillover effects, as operations move abroad. Strategic and national defense considerations may also be important.

Population movements between countries have occurred for centuries for both economic and political reasons. Varying degrees of control and restriction regulate these movements, depending upon historical circumstances and countries involved. Generally, host countries maintain the right to limit immigration, whereas countries attempting to constrain emigration especially for political reasons may face international criticism. Just as in the case of FDI, the international movement of labor may benefit both the sending and receiving countries by increasing economic efficiency and welfare. Such movements also create costs as well. The sending country may suffer as its stock of human capital falls, particularly since those who leave may be among the most-skilled and highly-productive workers. Offsetting effects here include somewhat higher wages for those remaining and the receipt of remittances from those who moved abroad. In the receiving

country, immigration may displace domestic workers and result in lower wages. The immigrants' use of the available social infrastructure may add further social costs as well.

FDI and the international movement of labor may provide the basis for conflict between nations, apart from conflicts arising as countries attempt to deal with the various departures from the free trade optimum that have been discussed above. The international community has not developed mechanisms and institutions for dealing with problems posed by FDI and the international movement of workers. Policies here remain the province of individual nations.

2.4. Departures from Full Employment/External Balance

The standard model of comparative advantage and the gains from trade assumes the continuous employment of all factors of production, given perfect competitiveness and smooth functioning of the markets for goods, services, and factors. Domestic distortions arising from difficulties in adjustment especially in the short- or medium-run, and market imperfections acting as a barrier to entry and exit of factors in particular sectors, explain any unemployment of factors. As discussed, the first-best policy dealing with distortions is a domestic tax/subsidy directed at the source of the distortion. Trade policy is generally second-best, or even worse than second-best, because of the production and consumption costs involved.

This same conclusion applies at the macroeconomic level. Departures from full employment may occur for a variety of reasons. For example, there may be exogenous real shocks due to an unexpected increase in oil prices or another type of supply disruption. It is also possible that there are unemployment or inflationary pressures because of cyclical fluctuations in economic activity. Such fluctuations may originate domestically or be transmitted from other countries via induced changes in imports, exports, and international capital movements. Finally, changes in monetary and/or fiscal policies may in themselves constitute a disturbance affecting aggregate employment and involving international transmission effects working through changes in foreign trade and capital flows.

Such disturbances can profoundly affect aggregate employment, prices, the balance of payments, and exchange rates. Accordingly, these disturbances may give rise to conflicting situations interna-

tionally as countries seek to offset the domestic consequences of the disturbances or to shield themselves from the adverse transmission of foreign influences. Trade intervention seems a suboptimal way of dealing with these macroeconomic disturbances when the underlying problems stem from difficulties of adjustment in the markets for goods and services, labor, and foreign exchange.

International macroeconomic issues and problems have been analyzed at length over the years. To relate these issues and problems to the subject of this essay, it may be helpful to distinguish between the defensive and offensive uses of policies in coping with various types of macroeconomic disturbances and interactions. An example of an offensive policy is the imposition of import restrictions to raise a country's employment level and improve its current account balance, as it represents an effort by one country to improve its position at the expense of another. A currency devaluation designed for the same purpose works similarly since it improves conditions in the home country while simultaneously worsening conditions abroad. Policies designed to improve a country's macroeconomic performance through changes in exports and imports thus appear to be exploitative. To the extent that other countries may respond in kind, such policies also reduce output and employment at home and abroad. By the same line of reasoning, defensive uses of macroeconomic policies seem justified if a country wishes to shield itself from the effects of foreign-induced changes in international trade and capital movements.

The foregoing theoretical reasoning reveals a very interesting and important lesson of macroeconomic policy, similar to this essay's point concerning first-best policies. The difference here arises from the international transmission effects noted. Thus, suppose two countries both experience a recession or inflation. In either case, the optimal policy for each country is to undertake domestic expansionary or contractionary macroeconomic policies designed to deal with the unemployment or inflationary pressures. If one country uses trade or exchange rate policies, this constitutes an exploitative measure since it exaggerates the other country's problems.

One can also imagine situations in which one country may experience a recession and another country experiences inflationary pressure. Depending on the type of exchange rate system in effect, this may or may not result in a conflict situation. With

fixed exchange rates a conflict arises since expansionary domestic policies in the recessionary country worsen the country's current account balance and have opposite effects abroad. A conflict situation also results if conversely the country with inflation implements contractionary domestic policies. This problem does not arise, at least in theory, if the exchange rate is flexible since the exchange rate movement should help to stabilize each economy.

In any event, there might be conditions when nations obtain international harmony by introducing macroeconomic policies targeted at domestic objectives. International disharmony may ensue, however, if countries use trade or exchange rate measures for dealing with domestic problems or introduce incorrect domestic macroeconomic policies working in a destabilizing manner internationally. In these instances, countries may desire to attempt to cooperate by coordinating their policy actions rather than going it alone.

3. CONCLUSION

This paper has made an effort to demonstrate how the theory of international trade and international macroeconomics conceptually handles issues of conflict in international economic relations.[12] In an earlier paper,[13] I sought to illustrate how some particular issues could be analyzed in a pragmatic manner using the Michigan Model of World Production and Trade. The Michigan Model is a large-scale computer simulation model of the major trading countries in the global trading system. The model has been used to analyze cases of implementing tariffs and safeguards policies, focusing on how unilateral U.S. actions would affect other countries. Concerning the imposition of tariffs, the model indicated that the possibility of retaliation precludes taking the policy action in the first place. With respect to safeguard policies designed to deal with unanticipated import surges, a

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[12] For an analysis in support of many of the points made in this essay and criticism of the idea that international trade can be viewed as warfare between nations, see Paul Krugman, *The Illusion of Conflict in International Trade*, *in* 2 PEACE ECON., PEACE SCI., AND PUB. POL'Y 9, 9-18 (1995).

[13] Robert M. Stern, *Conflict and Cooperation in International Economic Relations*, *in* BEHAVIOR, CULTURE, AND CONFLICT IN WORLD POLITICS 131 (Harold K. Jacobson and William Zimmerman eds., 1994).

multilateral-domestic production subsidy, rather than a unilateral/multilateral import tariff or quota, seems the preferred policy.

Negotiating options in the Uruguay Round were also analyzed to show how countries might choose to formulate their negotiating positions and identify tradeoffs on particular options in the light of their national interests. The emphasis was on the employment effects of different options, and the setting was one of cooperation for mutual gain by means of trade liberalization under the authority and influence of the GATT. A fourth set of experiments using the model related to the effects of unilateral/multilateral embargoes of international trade in armaments on employment in the major Western countries. According to experiments, the United States would experience only comparatively minor employment shifts with the elimination of trade in armaments. Other countries might experience more disruption of employment, but phasing in policy changes could mitigate the effects. In this last case, officials at the highest political levels would have to agree in order to effect the reductions in armaments trade. In reaching such a decision, it would be important to know how disruptive such changes would be. The Michigan Model results suggest that the effects involved would be manageable. If the countries concerned accept this conclusion, then cooperative steps could be taken to defuse the potential for conflict arising as the result of international trade in armaments.

The Michigan Model is only one example of the contribution that international economists can make to the analysis of conflict and cooperation in the international economic system. One can point to other economic modeling efforts dealing with different aspects of the global trading and payments system. The insights from international trade and macroeconomic theory and empirical economic modeling thus have much to offer to economic and legal analysts and government officials involved in the international policy process.