

2003

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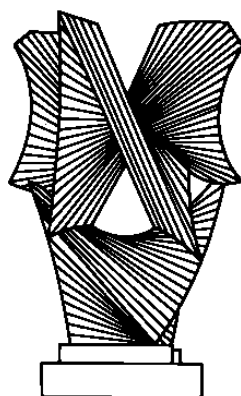
Recommended Citation

Alan O. Sykes, "The Economics of WTO Rules on Subsidies and Countervailing Measures" (John M. Olin Program in Law and Economics Working Paper No. 186, 2003).

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CHICAGO

JOHN M. OLIN LAW & ECONOMICS WORKING PAPER NO. 186
(2D SERIES)



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Alan O. Sykes

**THE LAW SCHOOL
THE UNIVERSITY OF CHICAGO**

May 2003

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THE ECONOMICS OF WTO RULES ON SUBSIDIES AND COUNTERVAILING MEASURES

Alan O. Sykes*

I. INTRODUCTION

Subsidies present thorny problems for the international trading system. The legitimate activities of governments inevitably affect the economic position of firms within their jurisdictions, yet the perception sometimes arises that government programs confer an unacceptable advantage on those firms. The controversial task of determining which sorts of government activities create unacceptable advantages, and what to do about them, has occupied an important place on the agenda of the WTO/GATT system since its inception.

The Uruguay Round of GATT negotiations produced an important new WTO Agreement on Subsidies and Countervailing Measures ("SCM"). It also established separate rules for agricultural subsidies in the WTO Agreement on Agriculture, and took some minimal steps toward addressing subsidies issues in services industries within the General Agreement on Trade in Services ("GATS"). Because the rules on subsidies within GATS are so undeveloped,¹ I will concentrate here on trade in goods, with primary emphasis on the SCM agreement and only a few words to say about agriculture.

In brief, I suggest that *some* of the WTO disciplines on subsidies are useful and sensible from an economic perspective, particularly (a) the nonviolation nullification and impairment doctrine that protects the market access expectations associated with particular trade commitments from frustration due to the introduction of unexpected subsidy programs; and (b) the general prohibition on export subsidies (outside of agriculture). *The treatment of domestic subsidies under WTO law is far more problematic*, in substantial measure because of the conceptual and practical difficulties in determining what constitutes an undesirable "subsidy." Further, *the opportunity for importing nations to employ countervailing duties in the WTO system is likely a source of more harm than good*. From the standpoint of welfare economics, a strong argument can be made that the WTO system should give up on its efforts to discipline domestic subsidies through general rules, and concentrate on the few sectors (such as agriculture) where a consensus arises that pressures for competitive subsidization are a source of economic waste. Likewise, global welfare would likely increase if general authority for the use of countervailing duties were eliminated.

* Frank & Bernice Greenberg Professor of Law, University of Chicago. I am grateful for thoughtful comments to participants in the Law and Economics Workshop at Northwestern University. I thank Jessica Romero for able research assistance.

¹For a discussion of how subsidies issues might eventually be addressed within GATS, see Gilles Gauthier, Erin O'Brien & Susan Spencer, *Deja Vu, or New Beginning for Safeguards and Subsidies Rules in Services Trade?*, in GATS 2000: NEW DIRECTIONS IN SERVICES TRADE LIBERALIZATION 165 (Pierre Sauve and Robert Stern eds. 2000).

Part I of this chapter provides an introduction to the economic issues that bear on the regulation of subsidies and countervailing measures. Part II then provides some legal background, beginning with the treatment of subsidies and countervailing measures in the GATT system prior to the Uruguay Round, and proceeding to consider the important developments in the law of the WTO. Part III is an economic discussion of what has been accomplished within the WTO/GATT system and what has not, while Part IV provides a brief conclusion.

II. ECONOMIC BACKGROUND

Subsidies are of concern to the members of the WTO/GATT system for three reasons. First, subsidies can undermine market access commitments by importing nations. Promises to reduce or eliminate the use of traditional instruments of protection like tariffs and quotas can prove worthless if other instruments of import protection are substituted for them, and new subsidy programs are one such instrument.

Second, and related, subsidies can divert customers from one exporting nation to another. The benefits to exporters of market access commitments secured through international negotiations are threatened just as much by subsidies to competing exporters in third countries as by subsidies to import-competing industries in the nations that make commitments.

Finally, and somewhat more amorphously, subsidies are said by many observers to "tilt the playing field" in a way that is unfair or otherwise objectionable, quite independently of whether they frustrate the market access expectations associated with WTO/GATT commitments on particular products or services. It is well known among economists, for example, that subsidies can distort resource allocation by diverting resources from higher valued to lower valued uses. Put slightly differently, they can distort comparative advantage and produce a less efficient global division of labor, leading to lower economic welfare. In the view of some observers, additional disciplines are required to thwart the use of subsidies that result in unfair or economically inefficient distortions of international trade.

Elements of all three concerns are reflected in the WTO/GATT legal system. Before discussing the law, however, it is useful to set forth some economic background.

A. What is a "Subsidy?"

Although the term "subsidy" is quite familiar in economics, it is rarely defined precisely. Often it is used synonymously with a government transfer of money to an entity in the private sector. On other occasions, the term "subsidy" may refer to the provision of a good or service at a price below what a private entity would otherwise have to pay for it. On still other occasions, it may refer to various government policies that may favorably affect the competitive position of private entities, such as procurement policies or programs to educate workers. Yet, it is by no means clear that all such

measures are "subsidies" in any meaningful sense.² Governments engage in a wide range of tax and expenditure policies that impose costs and confer benefits on private entities. The suggestion that a "subsidy" arises anytime a government program benefits private actors ignores the other side of the ledger—the numerous government programs that impose costs on those same actors.

To an economist, perhaps a natural benchmark for identifying subsidization is a hypothetical market equilibrium without the presence of government. The classic economic models of general competitive equilibrium, for example, are entirely decentralized and embody no government sector.³ When the government enters the picture through tax and expenditure policies, it will alter equilibrium prices and output. Activities for which the net returns are reduced will be discouraged to some degree, and those activities can be said to be "taxed." Activities for which the net returns are enhanced will be encouraged to a degree, and they may be said to be "subsidized."

The difficulty with this concept of subsidization is that it is exceedingly difficult to apply as a practical matter. The hypothetical market equilibrium without government cannot be observed, and indeed is not clear that the concept is coherent. Implicit in the classic general equilibrium models is a capacity for actors to engage in transactions, yet it is difficult to see how such a capacity can arise in a large economy without a government to create property rights. Further, the deviations from any benchmark equilibrium that result from government activity are exceedingly complex. Governments engage in a wide variety of taxation practices—income taxes, payroll taxes, capital taxes, value-added taxes, sales and excise taxes, and others. Not only are the number of tax instruments large in number (and often administered by several levels of government), but the incidence of the various taxes (the relative burden of the tax on the demand side versus the supply side of the market that is taxed) is often quite uncertain. Governments also engage in innumerable regulatory programs that impose costs on private entities of various sorts; occupational health and safety programs, environmental quality programs, programs to transfer resources to certain disadvantaged groups, and untold others. Finally, government expenditure programs provide vast benefits to private sector entities in direct and indirect ways, including public education, highways, research and development funding, low cost insurance, fire and security services, a legal system, and on and on. Even national defense services no doubt benefit private firms by reducing risk and lowering the cost of capital.

Against this backdrop, it is surely impossible in practice to ascertain the "net" impact of government on any entity according to the sort of benchmark put forth above. Of necessity, therefore, one must search for other benchmarks to determine when a "subsidy" exists.

The simplest alternative is to look at each government program in isolation, and to ignore the question of whether any benefits that it confers may be offset by costs elsewhere. If a particular program confers benefits on a private entity, a "subsidy" may be

²This set of issues is addressed thoughtfully in Richard Snape, *International Regulation of Subsidies*, 14 THE WORLD ECONOMY 139 (1991).

³See, e.g., Gerard Debreu, *THE THEORY OF VALUE* (1959).

declared to exist without further inquiry. Thus, for example, if a firm receives a loan from the government at a below-market rate, one might say that a "subsidy" arises without any regard to the various tax and regulatory burdens imposed on the firm.

A second possible alternative is to assume that *generally applicable* tax, expenditure and regulatory policies affect most enterprises about equally and thus do not confer any net "subsidy." Equivalently, one might assume that any subsidy conferred by generally applicable programs is uniform across industries, and will be counteracted by an offsetting movement in exchange rates. Programs of narrow applicability that target benefits at particular industries, by contrast, might be assumed to confer benefits that encourage production in that industry. To illustrate, a government might make an investment tax credit available to all industries that use durable goods. On the premise that all industries benefit about equally and that any effects on international competitiveness wash out through exchange rates, such a program might be ignored for purposes of identifying "subsidies." By contrast, if the automobile industry is the beneficiary of a special tax credit program for investment in automobile manufacturing, a "subsidy" might be found as to that industry.

A third possible alternative is to focus on the impact of government on private activities *relative to the impact of other governments on similarly situated entities elsewhere*. In the international context, one might look for programs that seem to confer particularly large benefits on particular entities relative to the benefits that governments confer on similar entities in other countries. The presumption would be that most governments tax and regulate in roughly similar fashion, resulting in similar background effects on the competitive position of most private entities—only when a program for a particular group of private entities stands out as especially generous relative to such programs elsewhere would a "subsidy" be present. Thus, for example, if most governments provide a certain range of benefits to their farmers, those programs might be presumed to cancel each other out in international trade more or less, and no "subsidy" would be found. But if a particular country provides industrial assistance to the semiconductor industry in a context where no such aid is provided by other governments, a "subsidy" might be said to exist.

Each of these alternatives has obvious deficiencies. The first has the virtue of simplicity, but its essential failing was noted above—by ignoring the offsetting costs imposed by government on private actors it raises a great danger that "subsidization" will be found where a private entity has not been meaningfully advantaged by government programs. Indeed, because so many government programs are funded out of general revenues, a narrow focus on particular government expenditure programs without any offset for most forms of taxation would lead to the conclusion that there is rampant "subsidization" in virtually any economy.

The second alternative is little more than *deus ex machina*. The insuperable complexities of calculating the net impact of national governments on domestic industries are avoided by assuming that generally applicable programs have a neutral impact while targeted programs do not. But there is no reason to believe that this assumption is correct. Many broadly applicable programs have widely disparate effects on different industries. Consider a simple example like public education—it will lower the cost of labor to

industries that use educated workers, but it may *increase* the cost of labor to industries that use lower-skilled workers by lowering the supply of such workers. Many similar examples might be given with respect to tax and regulatory programs. And, of course, the question of what is to be considered "generally applicable" or "targeted" is hardly straightforward.

The third alternative changes the inquiry fundamentally, and treats "subsidization" as an alteration in the competitive position of private entities relative to similar entities elsewhere. This shift in emphasis perhaps captures the notion that subsidization involves "tilting the playing field," and might be defended on that basis. But it too raises difficult practical problems. The presumption that most governments tax and regulate similarly with respect to background factors that affect the competitive position of private entities is highly suspect, and the mere fact that a particular type of program exists in one country and not another, or is more generous in one country than in another, is at best a weak marker for a program that shifts the competitive balance overall.

In sum, it is far easier to conceptualize a "subsidy" in simple economic models than it is to identify a subsidy in practice. Even when a government program viewed myopically might seem to afford uneconomic assistance to an industry, such assistance may in fact offset to other tax and regulatory burdens that disadvantage the industry. Any administrable rule for deciding whether a particular government program is a subsidy or not will no doubt result in serious errors of overinclusion and underinclusion for this reason alone. Other complexities will be considered below.

B. The Effects of Subsidies on Producers

For now, let us put to the side the problem of identifying subsidies, and simply assume that they exist. What are their effects?

Subsidies to the producers of goods and services lower the producers' costs of production, other things being equal. This reduction in their costs of production can lead to an expansion of their output in two ways, depending on the nature of the subsidy. First, some subsidies depend directly on output—the subsidy program may provide a producer with \$1 for each widget that it produces, for example (or \$1 for each widget that it exports, the classic "export subsidy" discussed below). Subsidies that increase with output in this fashion are economically equivalent to a reduction in the short-run marginal costs of production for the producer that receives them. In general, producers will respond to a reduction in short-run marginal costs by lowering price. Of course, when price falls, the quantity demanded by buyers will rise and output will expand to meet the increased demand.

Second, even where the amount of the subsidy is not contingent on output and does not affect short-run marginal costs of production, subsidies can affect long-run marginal costs in a way that causes additional productive capacity to come on line or to remain on line. For example, imagine an unprofitable company that is unable to cover its variable costs of production at any level of output, and would thus shut down its operations under ordinary circumstances. A subsidy to that company that is contingent on

it remaining in business can avert a shut-down in operations—it must simply be enough to allow the company to cover its variable costs at some level of output. Likewise, a subsidy can induce a company to build new capacity to enter a market when the expected returns to entry absent the subsidy would not be high enough to induce entry.

It is also possible, to be sure, that a "subsidy" will have no impact on the output of recipients. Imagine, for example, that a government simply sends a company an unexpected check for \$1 million. The money is in no way contingent on the company's output, or on it remaining in business. The owners of the company will be pleased to receive this subsidy, of course, but there is no reason for them to change their operations in any way—whatever level of output was most profitable without the subsidy will also be most profitable with the subsidy.

These observations suggest another important issue that must be confronted in conceptualizing subsidies. For a government program to confer a "subsidy," must it encourage an increase in output by the recipient? If it does not, then it cannot "tilt the playing field" in a way that causes detriment to competing producers. But if this question is answered affirmatively, it becomes necessary to inquire whether the government program in question affects marginal costs in the short run, or has an effect on long-run marginal cost that is sufficient to cause capacity to remain in production when it would exit otherwise, or to enter when it would not otherwise. Such issues are not always easily resolved.⁴

C. Distinguishing Good Subsidies from Bad Subsidies

Economic theory offers no general objection to the use of subsidies. As suggested above, a "subsidy" need not have any effect on the behavior of a private actor to the extent that it is offset by other costs that the government imposes on that actor. And even where a "subsidy" program can be deemed to confer a net benefit, any effect that it has on the economic activity of its recipients may well be socially desirable.

Students of microeconomics will be familiar with the proposition that subsidies may be used constructively by governments to remedy "market failures." For example, it may be difficult for individuals who invent socially valuable things to recoup their costs of research and development—depending on the nature of the innovation and the efficacy of any intellectual property protection, inventions may be copied by competing sellers and sold at a price that will not allow inventors an adequate return to their efforts. An appropriately calibrated government subsidy for research and development may then be economically desirable.

Even when obvious market failures are absent, some government programs may confer benefits on private sector entities that are collateral to their central purpose and

⁴Some commentators have proposed that countermeasures under international law should be limited to cases where the subsidy in question has a "cross-border" effect via an effect on the output of the recipients. See Charles Goetz, Lloyd Granet & Warren Schwartz, *The Meaning of "Subsidy" and Injury" in Countervailing Duty Law*, 6 INT'L REV. L. & ECON. 17 (1986). A symposium on this proposal, with a principal paper by Richard Diamond, may be found in 21 L. & POL. INT'L BUS. 503 (1990).

that are not usually seen as harmful. Public education programs may lower the cost of labor for many firms, as noted, but even if such programs might be deemed "subsidies" to private enterprise in a sense, few observers would regard them as objectionable. The best explanation is perhaps that most observers regard public education as contributing to a reasonable *distribution* of opportunities among citizens. Indeed, in some quarters, education is now viewed as a basic human right.

But it is also well-known that subsidies can distort resource allocation. Many subsidies simply transfer resources to well-organized interest groups without remediating any demonstrable market failure. From the standpoint of an economist, this last group of subsidies can be an appropriate target of legal discipline, while the first two groups are not. It is thus useful to consider in somewhat greater detail some particular types of subsidies that economists tend to deem undesirable.

1. Protective Subsidies

As noted above, depending on the nature of the subsidy program, subsidies may lead recipients to reduce prices and expand output. Such behavior by a subsidized firm will attract customers away from unsubsidized firms. It follows immediately that subsidies can be used to protect domestic firms from foreign competition. A subsidy to domestic firms that compete with imported goods or services can induce them to expand their share of the market relative to the share of imports, in much the same way as a tariff or a quota.

Subsidies for the purpose of protecting domestic firms from import competition, and subsidies that have such an effect without remediating some market failure or promoting some accepted distributional goal, will be termed "protective subsidies." So defined, protective subsidies are economically undesirable for two reasons.

First, as indicated earlier, protective subsidies may upset the expectations associated with particular market access commitments in the WTO/GATT system. If nation A receives a promise from nation B to eliminate the tariff on widgets in return for a reciprocal commitment on gadgets by nation A, and nation B then replaces the tariff on widgets with a subsidy that has the same effect as the tariff, nation A's ability to sell widgets to customers in nation B has not improved and its benefits from the bargain are lost. When bargains are undermined in this fashion, nations will become reluctant to enter them in the first instance. For this reason, protective subsidies can interfere with the negotiation of reciprocal agreements to reduce trade barriers, agreements that generally desirable from an economic standpoint.

Second, even if a protective subsidy does not upset expectations under a trade agreement, it still distorts resource allocation by affording protection. When domestic firms expand output at the expense of imports because of a subsidy, productive resources are diverted into domestic production and away from foreign production (wasteful diversion may occur from unsubsidized domestic firms to subsidized domestic firms as well). Resource allocation is distorted because goods and services are no longer produced at the lowest possible cost—domestic firms produce more and foreign firms produce less

only because of the artificial reduction in the costs of domestic firms attributable to subsidization. In addition, subsidy programs must be financed somehow, and virtually all forms of taxation to raise the money necessary for subsidies will cause additional economic distortions.

It is important to note, however, that protective subsidies may be no worse than other devices for protecting domestic firms against foreign competition. Comparing a subsidy to a tariff that achieves the same level of protection (as measured by the market shares of domestic and imported producers), for example, both have the same effect in diverting production from lower cost foreign firms to higher cost domestic firms. The tariff creates a further distortion by increasing prices to consumers, and pricing some consumers out of the market who are willing to pay the marginal cost of production to obtain the good or service in question but are not willing to pay the elevated price after the tariff is put in place.⁵ The subsidy avoids the increase in price to consumers and the associated distortion. But the taxation necessary to finance the subsidy likely creates some other distortion, and it is impossible to say in general whether the subsidy is on balance better or worse from an economic standpoint.⁶ Thus, in an environment in which some protection is tolerated for political reasons, it is by no means clear that subsidies are a bad way to provide it, as long as they do not upset the market access expectations associated with trade agreements.

The wisdom of subsidies can become even more difficult to assess if one adds a political dimension to the analysis. Imagine a society in which the electorate has a taste for rural, agrarian life and wishes to see it preserved. The electorate enthusiastically supports government programs to preserve family farms. Is a protective subsidy present? Or should one instead view the resulting political equilibrium as an efficient transfer to family farmers based on the electorate's willingness to pay to see them remain in operation? Does the answer turn on the issue of whether the farm program results from preferences of the electorate at large, or from deficiencies in the political process that allow well-organized interest groups (farmers) to exact transfers from poorly organized interest groups (taxpayers)?⁷

⁵For an accessible treatment of the basic welfare economics of tariffs, *See, e.g.,* PETER B. KENEN, *THE INTERNATIONAL ECONOMY* 17-19, 175-77 (1985), excerpted in JOHN H. JACKSON, WILLIAM J. DAVEY & ALAN O. SYKES, *LEGAL PROBLEMS OF INTERNATIONAL ECONOMIC RELATIONS*, 40-44 (2002).

⁶For a discussion of the relative costs and benefits of different policy instruments that afford protection, *See* Alan O. Sykes, "*Efficient Protection*" *Through WTO Rulemaking*, in *EFFICIENCY, EQUITY AND LEGITIMACY: THE MULTILATERAL TRADING SYSTEM AT THE MILLENNIUM* 114 (Roger Porter, Pierre Sauve, Arvind Subramanian and Americo Zambetti eds. 2001)

⁷These sorts of issues are considered in detail in Warren F. Schwartz and Eugene Harper, Jr., *The Regulation of Subsidies Affecting International Trade*, 70 *MICH. L. REV.* 831 (1972).

2. Subsidies for Export Promotion

Just as subsidies can protect firms in an importing nation from foreign competition, so too can they enhance the position of subsidized exporters relative to unsubsidized exporters in third-country markets. For example, suppose that nations A and B both export to country C. Nation A then introduces a subsidy that lowers the cost of its exports to country C, and its exporters lower their prices on exports to country C as a result. Nation B will then see its share of exports to country C diminish while nation A will see its share expand.

This diversion of exports from one nation to another can result from any subsidy that causes firms engaged in exporting to expand their output. Thus, it may or may not be intended by the government that grants the subsidy, and may or may not result from a subsidy that responds sensibly to market failure.

A particular set of subsidy practices, however, seems clearly aimed at inducing an expansion of exports—namely, subsidies that are contingent in one way or another on the volume of exports. Such "export subsidies" may take the simple form of a fixed payment for every unit of a good or service that is exported, or may take more subtle forms such as below-market export financing or insurance, tax benefits for exportation, and many other measures.

From an economic standpoint, export subsidies are generally undesirable. First, export subsidies diminish market access opportunities for competing exporters, and can upset their expectations pursuant to negotiated trade agreements. Trade agreements then become less valuable to them, other things being equal, and fewer such agreements may be entered. Alternatively, or perhaps in addition, competing exporters may prevail on their governments to establish subsidy programs of their own to restore competitive balance. The resulting battle of competing subsidy programs then dissipates resources on a broader scale for no useful economic purpose.

The other distortions associated with export subsidies are entirely familiar. By inducing the expansion of higher cost exporters at the expense of lower cost exporters, exported goods and services are no longer produced at the lowest possible cost. And the taxes used to finance the subsidy programs create further distortions that depend on the method of taxation.

Against these distortions associated with export subsidies, it is almost impossible to devise any scenario in which they might be economically justified. Although it is possible to imagine several settings in which a nation's exports may be "too low" from an economic standpoint, an export subsidy is most unlikely to be the optimal remedy.

First, exports may be uneconomically low because export subsidies by other nations have diverted business toward their exporters. But the appropriate response to that problem is an agreement among nations to eschew export subsidies, not a policy of competing subsidies that can exacerbate waste while doing nothing to eliminate the distortions of subsidization. Second, exports may be low because of protectionist policies

in export markets. Such barriers are a subject of direct negotiation under trade agreements, however, and can be dismantled directly through those negotiations. To the extent that protection must remain in the system for political reasons, attempts by exporting nations to overcome it through export subsidies will likely just result in more protection to counteract them. Third, exports might be said to be low because of some distortion in foreign exchange markets that causes an exporting nations' currency to be overvalued. Even assuming that "overvaluation" can occur by some sensible criterion, however, the proper response to it is currency market intervention or a change in the macroeconomic policies that cause overvaluation, not industry-by-industry export subsidies. Fourth, exports might be too low because of some market imperfection in an industry that causes its output to be too low—perhaps the returns to innovation are hard to capture, for example, so that an industry does too little research and development and loses share in world markets as a result. But the appropriate subsidy response here is not an export subsidy, but an R&D subsidy. The general point is that while various market imperfections might affect exports and a subsidy may be a proper policy response to some of those imperfections, the proper subsidy will be conditioned not on exports *per se* but on the activity that is undersupplied due to market failure (research in our example). Finally, exports in an industry might be too low because that industry is "overtaxed" by its own government in some sense, raising its costs and reducing its competitiveness uneconomically. But again the optimal remedy is not an export subsidy but a general reduction in the industry's tax burden.

This list of scenarios in which exports are in some sense "too low" may be incomplete, and perhaps the reader can imagine others. Yet, I think it exceedingly unlikely that an important class of cases exists in which export subsidies are the best response to any market imperfection—some other policy instrument, such as a different type of subsidy operating directly on the distorted behavioral margin, or a multilateral agreement to eschew export promotion policies, will almost certainly dominate the export subsidy.

D. Subsidized Imports from the Importing Country's Perspective

The fact that subsidies may distort resource allocation hardly means that everyone will be harmed by them. Trivially, the direct recipients of subsidies can only benefit from them even if the economy of the subsidizing nation as a whole suffers. Likewise, the consumers of subsidized goods and services will enjoy the lower prices that result from subsidies, even if taxpayers at large and unsubsidized producers suffer. The fact that some groups gain from subsidies and some groups lose, even when the subsidies are economically undesirable considering gains and losses in the aggregate, creates constituencies for subsidization that may prevail politically regardless of economic logic.

Of particular relevance to the WTO/GATT legal system is the perspective of importing nations regarding subsidized imports. In general, nations benefit from a reduction in the prices of goods that they import. It is straightforward to demonstrate in the standard case of a competitive industry that the economic losses to import-competing domestic firms are outweighed by the gains to domestic consumers from the opportunity to purchase goods or services more cheaply. The intuition for this result draws on the fact

that domestic firms hurt by lower prices can economize on their losses by shifting productive resources to activities with higher returns, while domestic consumers gain not only the price reduction on all units purchased at the previously higher price, but reap additional gains from the opportunity to purchase more units at a lower price.⁸ The net gain to an importing nation from lower priced imports does not depend in any way on the reason why price declines—a price decline due to foreign subsidies has the same economic consequences in the standard case as an equivalent price decline due to other factors. This observation lies behind a well-known economists' quip to the effect that the proper response of an importing nation to subsidies that lower the price of imports is to "send a thank-you note to the embassy."

To be sure, it is possible to devise scenarios in which subsidies granted by foreign governments to their exporting firms can be harmful to an importing nation. One possibility is that the subsidy may drive out all competitors of the subsidized firm(s) under circumstances where it is difficult for competitors to re-enter the market later, leaving the subsidized firm(s) with monopoly power that results in higher (rather than lower) prices.⁹ Related possibilities are explored in the literature on "strategic trade policy," which develops economic models in which subsidies are employed to expand the market share of firms in industries that yield better than competitive returns due to the presence of monopoly profits or positive externalities—it is theoretically possible in such models that subsidies will produce a net loss to nations that import the subsidized goods or services.¹⁰ A thorough examination of this literature would take us far afield, and it is enough to note here that these scenarios represent special cases. For the bulk of industries that operate under competitive conditions, subsidies to exporting firms will confer net benefits on nations that import their production.¹¹

The proposition that importing nations usually benefit from the opportunity to buy subsidized goods or services from abroad is plainly at odds with the popular notion that subsidized imports are "unfairly traded." Economists have relatively little to say about what is fair or unfair, and I take no position on the question whether a principled fairness argument offers an objection to subsidized imports. I note only that the same political constituency that benefits from any form of trade protection—namely, import-competing domestic firms—will benefit from countermeasures against subsidized imports as well. Many countries have national laws that authorize countermeasures against subsidized imports under specified conditions. These laws are termed "countervailing duty laws," and will be discussed in more detail below.

⁸See the diagrammatic exposition in Kenen, *supra* note 4.

⁹See Janusz Ordover, Alan Sykes & Robert Willig, *Unfair International Trade Practices*, 15 N.Y.U. J. INT'L L. & POLITICS 323 (1983).

¹⁰See, e.g., James Brander & Barbara Spencer, *Export Subsidies and International Market Share Rivalry*, 18 J. INT'L ECON. 83 (1985); Avinash Dixit and Alan Kyle, *The Use of Protection and Subsidies for Entry Promotion and Deterrence*, 75 AM. ECON. REV. 139 (1982); Jonathan Eaton and Gene Grossman, *Optimal Trade and Industrial Policy Under Oligopoly*, 101 Q. J. ECON. 386 (1986); Paul Krugman, *Industrial Organization and International Trade*, in HANDBOOK OF INDUSTRIAL ORGANIZATION, VOL. II, 1179-1223 (Richard Schmalensee & Robert Willig eds. 1989).

¹¹A detailed exploration of the impact of subsidies on the welfare of importing nations, including a discussion of the strategic trade literature, may be found in Alan O. Sykes, *Countervailing Duty Law: An Economic Perspective*, 89 COLUM. L. REV. 199 (1989).

III. LEGAL BACKGROUND

The original drafters of GATT in 1947 paid little heed to the trade issues associated with subsidies. GATT's lack of attention to the matter was quickly perceived to be unsatisfactory, however, the subsequent history of the WTO/GATT system reflects steadily increasing discipline on the use of subsidies by member nations.

A. Subsidies and Countervailing Measures in the GATT System Prior to the Uruguay Round

The original GATT contained limited provisions with respect to subsidies and countervailing measures, which were embodied in Articles XVI, II, VI and III. Like all of the GATT, these provisions applied to trade in goods but not to trade in services.

GATT Article XVI originally consisted of a single paragraph containing a loose reporting requirement with respect to subsidies that operated to reduce imports or increase exports. Article II:2(b) of GATT authorized the use of countervailing duties (and antidumping duties), even if they resulted in tariff rates that exceeded negotiated tariff commitments, as long as they were imposed in accordance with Article VI. Article VI in turn imposed three significant requirements on the use of countervailing duties. First, any such duty could not exceed the estimated amount of the "bounty or subsidy" granted on a product, although no definition of those terms was included. Second, duties could not be imposed unless "the effect of the...subsidization...is such as to cause or threaten material injury to an established domestic industry, or is such as to retard materially the establishment of a domestic industry." Finally, to the extent that subsidies might result in lower prices for exportation that could be treated as dumping, no product could be subjected to both antidumping and countervailing duties "to compensate for the same situation."¹² A final provision bearing on the use of subsidies was Article III:8(b). The "national treatment" requirements of Article III broadly required member nations to treat domestic and imported products alike for purposes of domestic tax and regulatory policies. Paragraph 8(b) created an exception, stating that Article III did not "prevent the payment of subsidies exclusively to domestic producers."

Thus, the original GATT was quite tolerant of subsidies. It did acknowledge the permissibility of countervailing duties when import-competing industries were injured by subsidies, and it undertook to limit those duties to an amount that would offset the subsidy.

These rules were soon perceived to be inadequate. The first development came with respect to subsidy policies that upset market access expectations under tariff commitments. As early as 1950, a working party found that an unexpected change in subsidy policy that disadvantaged imported goods relative to domestic competitors could be found to deny the benefits associated with a tariff concession, and thus to constitute

¹²GATT Art. VI: 3,5 and 6.

what is termed a "nonviolation nullification or impairment" of GATT benefits that gives rise to a right of redress under the dispute settlement provisions of Article XXIII.¹³

Article XVI was later amended during a 1954-55 review session to add some commitments to reduce the use of export subsidies. With respect to subsidies on "primary products,"¹⁴ the obligation was to avoid the application of subsidies that resulted in a nation obtaining a "more than equitable share of world export trade." For products other than primary products, the obligation was to avoid subsidies that resulted in a price for exportation of a product that was below the price charged for the like product in the domestic market.¹⁵ Of course, "export subsidies" as defined above will indeed tend to lead to export prices that are below home market prices, and thus the amended Article XVI amounted to something close to a prohibition on the use of export subsidies on other than primary products (although a complaining member nation would likely have had to show a price differential to prevail in the event of a complaint). These amendments, however, were not accepted by all GATT signatories.¹⁶

In 1960, a GATT working party devised an "illustrative list" of practices that would likely result in the two-tier pricing structure that would violate the obligations of Article XVI with respect to other than primary products. The working party report was "adopted" by the GATT membership and thus became an authoritative basis for determining whether a violation of those obligations was present.¹⁷

The next stage in the evolution of GATT Subsidies law was an agreement popularly known as the "Subsidies Code," negotiated during the Tokyo Round of the late 1970's. Its principal achievements were three: it tightened the restrictions on the use of export subsidies; it elaborated the procedures that must be followed in investigations that may lead to the use of countervailing duties; and it identified some criteria to be examined in determining whether subsidized imports were a cause or threat of material injury. The illustrative list of export subsidies was included in the Code as an annex. Like the amendments to Article XVI, however, the Code was accepted by only a limited number of GATT signatories.

In sum, the legal environment prior to the Uruguay Round had the following essential characteristics:

—subsidies were generally permissible for domestic producers, although a number of GATT signatories had accepted obligations to reduce the use of export subsidies, especially on other than primary products.

¹³See Report of the Working Party, *Australian Subsidy on Ammonium Nitrate*, II BISD 188 (1952)(adopted April 3, 1950).

¹⁴These were defined as any product of farm, forest or fishery, or a mineral, in its natural form or else processed to the point customarily required for it to be marketed in substantial quantities in international trade. See GATT Ad Art. XVI.

¹⁵GATT Art. XVI:3-4.

¹⁶For a discussion of their legal status within the GATT system, see John H. Jackson, *WORLD TRADE AND THE LAW OF GATT* 371-76 (1969).

¹⁷See GATT, 9th Supp. BISD 185 (1961).

—countervailing duties were permissible if calibrated to the amount of subsidization and based on a finding of injury; a number of signatories had also agreed in the Subsidies Code to follow certain procedures in investigating subsidy allegations.

—new subsidy programs that frustrated market access expectations associated with tariff concessions were understood to constitute a violation of GATT.

GATT disputes through the years were clustered around these basic principles. Thus, a few cases challenged subsidy practices as impermissible export subsidies.¹⁸ Occasionally, a dispute would arise over whether a countervailing duty had been imposed in excess of the amount of the subsidy bestowed on the product in question.¹⁹ And new subsidy programs might be challenged as upsetting the expectations associated with tariff concessions.²⁰

As for the use of countervailing duties in the GATT system, their use was relatively uncommon. The United States employed them far more often than any other nation. Between 1980 and 1991, only 128 definitive countervailing duties were reported to the GATT Secretariat by all members combined. Of that total, 110 were imposed by the United States.²¹

B. The Uruguay Round Agreements

Two new WTO agreements (in addition to the old GATT which survives in the WTO) bear importantly on the issue of subsidies—the Agreement on Subsidies and Countervailing Measures (“SCM Agreement”), and the Agreement on Agriculture. (The General Agreement on Trade in Services essentially defers subsidies issues to future negotiations.). The agreements are extremely detailed, and I will not attempt to survey all of their legal provisions. Instead, this section lays out the features that raise the most interesting and important economic issues.

1. Subsidies and Countervailing Measures

The SCM Agreement adds a great deal to the law that existed before it. It applies only to trade in goods, however, and its restrictions on the use of subsidies do not apply to agricultural subsidies that conform to the requirements of the Agreement on Agriculture during the “implementation period” of that Agreement.

¹⁸See, e.g., Report of the GATT Panel, *DISC—United States Tax Legislation*, BISD 23rd Supp. 98 (1977) (presented to the Council of Representatives on November 12, 1976). This report was not adopted until a compromise arrangement in 1981 produced a declaration that affirmed the principles in footnote 59 of the Tokyo Round Subsidies Code. The United States then replaced DISCs with Foreign Sales Corporations (FSCs), a measure that has been successfully challenged before the WTO.

¹⁹See Report of the GATT Panel, *United States—Countervailing Duties on Imports of Fresh, Chilled and Frozen Pork from Canada*, BISD 38th Supp. 30 (1991) (adopted July 11, 1991).

²⁰See Report of the GATT Panel, *EEC—Payments and Subsidies Paid to Processors and Producers of Oilseeds and Related Animal-Feed Proteins*, BISD 37th Supp. 86 (1990) (adopted January 25, 1990).

²¹See JOHN H. JACKSON, WILLIAM J. DAVEY & ALAN O. SYKES, *LEGAL PROBLEMS OF INTERNATIONAL ECONOMIC RELATIONS*, 768 (1995).

The GATT and even the Tokyo Round Subsidies Code contained no definition of the term "subsidy." Part I of the SCM agreement defines "subsidy" in some detail. It entails a "financial contribution by a government," in the form of (i) a direct transfer of funds, (ii) a decision to forego revenue that is "otherwise due," (iii) the provision of goods and services, or (iv) an income or price support scheme, if the financial contribution confers a "benefit."²² The requirement that a benefit be conferred makes clear that not all government programs are subsidies—if a government provides goods and services at market prices, for example, no benefit arises and thus no subsidy exists.

The fact that a program is a "subsidy" by this definition is not enough to subject it to WTO constraints. Rather, only subsidies that are "specific" are subject to possible condemnation under WTO law, or to countervailing duties by WTO members. The concept of specificity originated in U.S. law, and relates to the degree of targeting in the government program at issue. Subsidies that are expressly limited to "certain enterprises" are specific, that term left undefined. By contrast, when the program does not "favour certain enterprises over others," but is available on the basis of "objective criteria or conditions" to enterprises at large, it is not specific—an example given of such a criterion would be the number of employees in an enterprise. Subsidies that appear on their face to be non-specific, however, can become specific as applied. Further, subsidies that are limited to a particular geographic region within the jurisdiction of the administering authority are defined to be specific.²³

A major innovation in the Agreement was the creation of a "red light, yellow light, green light" system to govern subsidies. Two types of "red light" subsidies are completely prohibited—export subsidies, including all subsidies listed in the illustrative list now attached as Annex I, and subsidies contingent on the use of domestic over imported goods. All such subsidies are defined to be "specific" regardless of their details.²⁴

The "yellow light" subsidies are termed "actionable" subsidies—they are not prohibited altogether, but may be challenged under certain conditions. A subsidy is actionable if it is specific and if it causes one of three types of to another member: (a) injury to a domestic industry; (b) impairment of the benefits of a tariff concession; or (c) "serious prejudice to the interests of another Member."²⁵ The first two concepts are familiar from earlier GATT law—injury was required in connection with the use of countervailing duties, and new subsidies were understood to have the potential to impair the benefits of tariff concessions. Previously, however, only the second type of subsidy was a violation of GATT law. Subsidies that merely caused injury to an industry in an importing nation were permitted but could be countervailed.

The new conception of harm that did not exist in prior GATT law is "serious prejudice." The types of harm that can justify a finding of serious prejudice include a loss of exports by the complaining member to the home market of the subsidizing member, and a loss of exports by the complaining member to exporters from the subsidizing

²²SCM Agreement Art. 1.1.

²³*Id.* Art. 2 & n.2.

²⁴*Id.* Arts. 3 & 2.3.

²⁵*Id.* Art. 5.

member in a third country market. Thus, the notion of serious prejudice makes subsidies potentially actionable anytime they cause injury to the export industries of other members. Prior law is thereby extended in two ways: an action may be brought when a subsidy displaces exports from the complaining member to a third country market, and an action may be brought when a subsidy displaces exports from the complaining member to the market of the subsidizing country, even if the subsidy would not be deemed to impair market access expectations associated with a tariff commitment (as in a case where there was no tariff binding, or where the subsidy already existed at the time of the tariff negotiations). The burden of proof to show serious prejudice is on the complaining member in general, except when the subsidies are of a particular magnitude or type (such as ad valorem subsidization of a product in excess of five percent of its value, or subsidies to cover operating losses). In those cases the subsidizing member has the burden of proving the absence of serious prejudice.²⁶

The "green light" subsidies were introduced on an experimental basis for a five-year period, which expired in the year 2000. At present, the experiment has not been renewed. While the "green light" provisions were in effect, certain types of subsidies were "non-actionable" even if they were specific and caused one of the harms enumerated above. The three categories of subsidies temporarily insulated from challenge were: (i) certain R & D subsidies; (ii) certain regional development subsidies; and (iii) certain subsidies for environmental compliance costs.²⁷ Nations that complied with the restrictions in each category could grant the subsidies without fear of challenge or countervailing measures—the green light rules thus created "safe harbors" for the enumerated government programs.

Much of the SCM Agreement pertains to the imposition of countervailing duties, and sets forth a variety of substantive and procedural restrictions on their use. In large part these were also found in the Tokyo Round Subsidies Code. Substantively, the agreement makes clear that market benchmarks should be used in valuing subsidies,²⁸ and requires that "all relevant factors" be considered in determining whether injury is present.²⁹

2. Agriculture

Agricultural subsidies remain widespread in the global economy, and the Agreement on Agriculture undertakes to limit them. It falls far short of the disciplines contained in the SCM Agreement, however, and was envisioned simply as a first step toward addressing a situation that had become quite unsatisfactory under GATT.

In particular, GATT Article XVI contained a "loophole" for subsidies on primary products, which include all basic agricultural commodities. While amended Article XVI generally prohibited export subsidies on other than primary products, the rule for primary products was that export subsidies should not result in the subsidizing nation obtaining a "more than equitable share" of world export trade in the subsidized product. After some

²⁶*Id.* Art. 6.

²⁷*Id.* Art. 8.2.

²⁸*Id.* Art. 14.

²⁹*Id.* Arts. 15-16.

wrangling, this test was ultimately found to be too vague to be enforceable, with the result that agricultural export subsidies were completely undisciplined. As noted, GATT had little to say about domestic subsidies either, and so agricultural subsidies became rampant (and still are).

During the Uruguay Round, efforts were made to negotiate limits on agricultural subsidies, but it was clear that major players such as the European Union, the United States and Japan were unwilling to accept dramatic reductions in their farm programs. A decision was made to devise an agreement that could facilitate a gradual reduction in such subsidies over time, by treating them in much the same way as the GATT treats tariffs on goods. Both export subsidies and domestic subsidies became the subject of specific commitments, and nations agreed to limit certain types of domestic and export support programs in accordance with negotiated ceilings. The permissible level of subsidies is scheduled to decline over time, and it is anticipated that future negotiations will produce further reductions.

Annex 2 of the Agreement exempts certain types of domestic support programs from the negotiated commitments. Generally speaking, the types of programs that are exempt are those which have relatively less impact on output—programs that cushion the incomes of farmers, for example, without encouraging them to increase their production. Article 13 of the Agreement also creates some safe harbor provisions for subsidies that conform to the Agreement, exempting them from countervailing duties and the like under GATT.

The arrangements in the Agriculture Agreement are complex and could readily serve as the basis for an entirely separate academic treatment. I will devote relatively little further attention to them here, and will simply note that aside from the introduction of negotiated ceilings and the exemption for domestic subsidies that have less of a distortive effect on output than others, there is little economically novel about the approach of the Agriculture Agreement to subsidies discipline.

IV. AN ECONOMIC PERSPECTIVE ON THE WTO RULES

There are many subtle economic issues relating to the treatment of subsidies under WTO law. I cannot hope to touch on all of them here, and will simply emphasize the most general and important ones.

A. Protecting the Bargain under GATT and GATS

As noted in Part I of this chapter, part of the concern about subsidies in the WTO system relates to the possibility that they will undermine the market access expectations associated with the commitments that members have made to each other. Not all subsidies do so, of course, only subsidies that are unexpected and that alter the competitive balance between exporters and their domestic competitors in a manner that trade negotiators did not anticipate.

Both GATT and GATS respond sensibly to this issue with the "nonviolation nullification or impairment" doctrine. Any change in policy by member governments, including the introduction of new subsidies, may be shown to deny benefits that members reasonably expected to obtain as a result of negotiated concessions. Once this showing has been made, the complaining member is entitled to redress in the form of a withdrawal of the offending measure, or other trade compensation. This policy protects the value of the bargain for all members and thereby encourages more bargains to be struck.

A nice feature of the nonviolation doctrine is the fact that it does not require subsidies to be carefully defined or measured. A complaining member need simply demonstrate that an unanticipated government program has improved the competitive position of domestic firms at the expense of their foreign competition. The administration of the doctrine is thus reasonably straightforward, and the fighting issue is likely to be whether the government policy in question was foreseen by trade negotiators. On that issue, WTO law has also moved sensibly in the direction of a rebuttable presumption that measures introduced subsequent to a tariff negotiation are unanticipated. For measures extant at the time of the negotiation in question, a rebuttable presumption arises that their effects on the market in question could be anticipated.³⁰

The nonviolation doctrine is of no help, however, in addressing the other reasons for concern about subsidies. In particular, it has no bite when a third country introduces new subsidies that result in shift in business toward its exporters. And it does nothing to address the problem of subsidies that create other economic distortions. These problems bring us to the much more complex (and problematic) rules found in the Agreement on SCM.

B. The Red Light: Export and Domestic Content Subsidies

The GATT system has long viewed export subsidies as particularly problematic, culminating with the prohibited subsidy category in the WTO SCM agreement, which makes it illegal to employ export subsidies in goods markets (save for the agricultural sector). The prohibited category also encompasses, as noted, subsidies that are conditioned on the use by the recipient of domestic over imported goods.

The prohibition on export subsidies has two convincing economic justifications. First, as noted earlier, market access expectations can be upset not only when an importing nation introduces a new subsidy to domestic firms, but also when third countries introduce subsidies that result in a diversion of business to their exporters. A relatively inexpensive way for third countries to divert trade toward their exporters is through the use of export subsidies, and history teaches that nations will employ them in the absence of legal constraint. The prohibition on export subsidies thus eliminates an important policy instrument for export promotion that can erode the benefits of the bargain and thus discourage trade bargains in the first instance. It also ensures that nations will not go down the road of competing with each other to subsidize their exporters.

³⁰See Report of the Panel, *Japan—Measures Affecting Consumer Photographic Film and Paper*, WT/DS44/R (adopted April 22, 1998).

Second, even if an export subsidy would do nothing to frustrate the market access expectations of other trading nations (as where it is longstanding and fully anticipated), it is almost certainly a source of economic distortion. As noted earlier, economic theory suggests that subsidies can at times serve as a device for remedying market failure. In general, a subsidy to correct a market failure should be made contingent on the activity that is undersupplied because of the market failure.³¹ For the reasons given previously, it is exceedingly difficult to imagine a market failure that is best addressed with an export subsidy.

The other "red light" subsidy category, subsidies contingent on the use of domestic over imported goods, presents somewhat more of a puzzle. GATT Article III, a provision now incorporated into WTO law, permits the granting of subsidies exclusively to domestic producers of goods (subject to the possibility that they may be countervailed, and now that they may be "actionable" under certain conditions). Such subsidies, of course, can encourage the production of more domestic goods at lower prices, and result in the purchase of domestic rather than imported goods by buyers. A subsidy to buyers that encourages them to buy domestic rather than imported goods has the same effect. Indeed, a per unit subsidy to all domestic buyers of a good can be completely equivalent in its effects to an equal per unit subsidy to all domestic sellers—net output of domestic producers, net imports, and net price to buyers will be exactly the same under competitive conditions. One is led to wonder, therefore, why the domestic producer subsidy is widely tolerated while the subsidy to domestic purchasers conditioned on the purchase of domestic goods is prohibited. By the same token, the prohibition may have little economic bite—a nation that cannot use a subsidy to domestic purchasers can substitute one to domestic sellers, and probably achieve much the same result.

C. Domestic Subsidies and the Definition of Subsidy in WTO Law

As noted, WTO law identifies domestic "subsidies" as financial contributions that confer a "benefit," and makes them actionable or subject to countermeasures only if they are "specific." As such, WTO rules are seriously deficient in relation to a number of the problems with the identification of undesirable subsidies discussed in Part I of this chapter.

First, the existence of a "financial contribution" that confers a "benefit" cannot be analyzed in isolation if the goal is to ascertain the net impact of government on the competitive position of an industry. Often, such benefits will offset by other tax or regulatory burdens, and nothing in WTO law permits such issues to be considered systematically. Although an effort to sort out these net effects would be extraordinarily complicated and fraught with error, to ignore the problem is to render the system unable to detect true subsidization of an industry except by chance.

One argument that might be advanced to rescue the WTO approach in the face of this objection has already been addressed. It is simply baseless to assume that generally applicable tax, expenditure and regulatory programs collectively have a neutral impact on

³¹See, e.g. HARRY JOHNSON, ASPECTS OF THE THEORY OF TARIFFS, 117-51 (1971).

all industries, and that only targeted or "specific" programs can be a source of net benefits. The folly of such an assumption is well-illustrated by considering the sector that most observers would regard as the most subsidized in the world—agriculture. Under the specificity test as it has evolved, a program aimed at growers of particular agricultural product, such as wheat, would be specific. But a program that gave assistance to all farmers regardless of what they grow would not be specific.³² Thus, the degree to which agricultural subsidies are "specific" will depend in large measure on form rather than substance—governments that bundle farm subsidies together into generally applicable farm programs may escape a finding of specificity, while those with multiple pieces of legislation that each focus on one or a few farm products may not. Although agricultural subsidies are to a considerable degree exempted from discipline under the SCM agreement during the implementation period for the Agriculture Agreement, the broader point remains.

It has also been suggested that targeted programs are more likely than untargeted programs to be motivated by protectionist considerations—the narrower the group of beneficiaries, the argument runs, the more likely that the program in question is a "special interest deal" rather than a program geared to some high-minded purpose. There may be some merit to this argument, but it seems highly speculative. Agriculture once again provides a good example, where the most powerful special interest lobbies in the subsidies sphere often secure government largesse that is deemed non-specific as a legal matter.

In addition, even when an industry is a net beneficiary of government largesse, those benefits may be socially justifiable. Some industries may be a source of positive external economies (most likely in the high technology area), while others may receive assistance because of the desire of the polity to preserve them (cultural industries, family farms?) Aside from the now expired "green light" subsidy rules, to be discussed below, WTO law does nothing to address the question whether the ostensible "subsidy" addresses some legitimate problem. The specificity test, in particular, bears essentially no relation to this question. Indeed, where a principled justification for a subsidy exists, it will likely arise narrowly and case-by-case, so that the policy response will often appear "specific."

Finally, WTO law to a considerable degree ignores the question whether subsidies have an effect on the output of the beneficiary, and thus the attendant question whether foreign competitors can be harmed by it (and to what extent). There is no requirement that the "benefit" from the subsidy have any effect on production, for example. Likewise, WTO members are arguably permitted to use countervailing duties against measures that confer "specific" "benefits" even if the subsidy program in question has no effect on short run marginal costs or industry capacity.³³ The requirement of injury to a domestic industry prior to the use of countervailing duties might seem to preclude them when no

³²This rule is formally embodied in the countervailing duty regulations of the U.S. Department of Commerce. *See* 19 C.F.R. §351.502(d).

³³*See* the discussion of the U.S.-Canadian lumber dispute in JACKSON, DAVEY & SYKES, *supra* note 18, pp. 845-51. The suggestion that only output-increasing subsidies should be subject to countervailing duties is discussed in the sources cited in *supra* note 3.

effect of the subsidy on output is present, but that constraint has not materialized in practice given the way that the injury test has been operationalized.³⁴

Of course, the requirement that a "benefit" exist imposes some restrictions. A subsidy bestowed long in the past, for example, followed by an arm's-length sale of assets to another party, may have no "benefit" to the owner of those assets presently.³⁵ Further, in any action predicated on "serious prejudice" under the SCM agreement, the respondent country may be able to rebut the existence of an serious prejudice by showing that the subsidy program in question did not increase output. But on the whole, WTO law does not in general require proof that the subsidy in question has resulted in an expansion of output that has injured the complaining party.

The failure of WTO law to require measurement of the net impact of domestic programs on an allegedly subsidized industries, to assess whether any net benefit to them is justifiable, or to assess the effect of subsidies on output is perhaps unsurprising given the enormous administrative challenges that such inquiries would entail and the difficulties that would attend any effort to achieve consensus on how to undertake them. As a result, however, WTO rules for the identification of problematic domestic subsidy programs are deeply and profoundly flawed from an economic standpoint.

D. The Yellow Light, Green Light Approach

As noted, the SCM agreement goes beyond prior law in making certain domestic subsidies "actionable" (that is, they can be challenged as violations of WTO law and not simply countervailed if they injure an import-competing industry) even if they do not impair market access expectations associated with tariff concessions. The basis for such an action can arise whenever a specific subsidy causes injury to an import-competing industry, displaces exports to the subsidizing country, or displaces exports to a third country market. Subsidies with the potential to cause such effects are colloquially termed the "yellow light" subsidies.

On one level, the opportunity to challenge such subsidies as violations of WTO law is an important step forward for two reasons First, under prior law, domestic subsidies that harmed import-competing industries abroad could merely be countervailed by the importing nation, which is an inferior option for reasons that will be addressed below in the discussion of countervailing duties. As a brief preview of the discussion,

³⁴Agencies that administer the injury test often look at factors such as the correlation between the volume of subsidized imports and the indicia of injury to domestic firms, for example, which does not establish harm due to the subsidy itself. Indeed, there is a long-running controversy over whether WTO law requires injury to be linked to the subsidy, or simply to the presence of the subsidized imports in the importing nation. See the discussion of the material injury test in JACKSON, DAVEY & SYKES, *supra* note 18, pp. 737-46.

³⁵See Report of the Appellate Body, *United States—Imposition of Countervailing Duties on Certain Hot-Rolled Lead and Bismuth Carbon Steel Products originating in the United Kingdom*, WT/DS138/AB/R, (2000), ¶¶52-68. The proposition that a sale of assets at fair market value cleanses those assets of any "subsidy" previously received may, however, be contested in some instances. If the prior subsidy program resulted in the construction of uneconomical capacity, for example, the fact that it is sold at arm's-length and remains in operation thereafter would not change the fact that the subsidy had caused an expansion of output.

countervailing duties do not necessarily discourage undesirable subsidization, and may simply divert subsidized goods to other markets. The waste caused by the subsidy then remains and global economic welfare may worsen rather than improve.

Second, prior law afforded no remedy to exporters when a *domestic* subsidy to competitors caused them to lose exports to third country markets. That is, if country A gave a domestic subsidy to some exporting industry, and that industry expanded its exports to country B at the expense of exporters in country C, the exporters in country C had no legal options for redress. A countervailing duty in their home market is of no help when the harm is suffered in a foreign market. The nonviolation nullification or impairment doctrine is of no use (even if the subsidizing country had bound its tariff on the subsidized good) because the loss of market access occurs in a third country market, not the market of the subsidizing nation. The extension of the concept of "serious prejudice" to cover this scenario thus creates a potentially important new remedy.

Yet, the notion that the "yellow light" category adds valuable new remedies to address harmful domestic subsidies must ultimately rest on the ability of WTO law to identify problematic domestic subsidies in the first instance. That proposition, in turn, brings us full circle to the issues discussed above. If WTO law does a poor job at identifying the net impact of government on industries, a poor job of assessing whether government assistance to industry is justified, and a poor job of determining whether it has a significant impact on foreign competitors, it is not clear that adding new remedial options does anything worthwhile.

As for the now expired category of "green light" subsidies relating to research and development, development assistance to disadvantaged regions, and environmental compliance costs, there are two possible views. The more cynical perspective proceeds from the suspicion that the WTO can never do a good job of identifying undesirable domestic subsidies, and hence that such subsidies should generally be ignored by WTO law unless they upset the market access expectations associated with specific concessions. Then, any set of safe harbor provisions appears a step forward.

But one can also argue that the particular safe harbor provisions created by the green light experiment (with the possible exception of the R&D category) are questionable. A general objection to these provisions relates to the fungibility of money, and the attendant possibility that the safe harbor rules will be subject to abuse. If government provides resources to a firm with environmental compliance costs, for example, what is to ensure that the marginal effect on behavior lies in environmental compliance? Quite plausibly instead, the subsidy may be used to expand productive facilities and increase output with no impact on the environment relative to the counterfactual world without the subsidy (where the firm would still have had to meet its environmental obligations). Likewise, when a subsidy is nominally given for research and development, how can trading partners be assured the it in fact results in more R&D at the margin rather than some other output expanding behavior?³⁶ In short, the premise

³⁶Other commentators have made similar points. See, e.g., William Wilcox, *GATT-Based Protectionism and the Definition of a Subsidy*, 16 B.U. INT'L L.J. 129 (1999).

that subsidies can be dedicated to particular purposes and shown to be used in that fashion is shaky.

More particular objections may be addressed to each of the three safe harbor categories. The R&D category presents the best case for a safe harbor, in that research and development affords a paradigm example of an activity that *may* generate positive externalities and that *may* be undersupplied by a private market. Yet, nothing in the WTO rules on the subject required any showing that the particular research in question plausibly required subsidization. The opportunity to subsidize was present to the same degree for all industries regardless of their technological progressivity or the difficulty that private actors have in appropriating the returns to innovation. Perhaps administrative considerations dictate a blanket approach, however, and if so then perhaps a safe harbor for R&D has some logic (subject to the caveat above about the fungibility of money).

The category covering assistance to disadvantaged regions is more problematic. All sizable nations likely contain regions with lower than average per capita income, and there is no economic basis to suppose that subsidies for industrial development in such regions will address any market failure. To the contrary, they may induce businesses to locate inefficiently to take advantage of the subsidy, and simply provide an opportunity for the interest groups in pursuit of wasteful subsidies to obtain them more easily.

Subsidies to cover environmental compliance costs are also questionable on economic grounds. To be sure, pollution is the classic economist's example of a (negative) externality. But the usual economic prescription for negative externalities is to require the party that creates the externality to "internalize" it—in the environmental area, the corollary is the well-known "polluter pays" principle. Thus, standard economic models of optimal environmental policy call for polluting activities to be taxed, not subsidized. A subsidy for environmental compliance costs can abate pollution to be sure, but only at the cost of encouraging a larger than desirable scale of polluting activity. It is by no means clear why the WTO should create a safe harbor for the inferior policy instrument of subsidization.

E. Countervailing Duties

For the reasons given in Part I of this chapter, countervailing duties usually strike economists as peculiar. Subsidies may be wasteful, but even when they are the economic loss is generally borne by the taxpayers in the nation that bestows the subsidy. Nations that import the lower-priced, subsidized merchandise are net economic beneficiaries for the same reasons that any reduction in the price of things they buy from abroad is a benefit. When nations respond to subsidies with countervailing duties, therefore, they tend to reduce their economic well-being, other things being equal. The suspicion thus arises that countervailing duties result when well-organized protectionist interest groups use the fortuity of "subsidization" to secure protection from import competition that they might not secure otherwise.³⁷ The mere threat to use countervailing duties may also be

³⁷Studies of the use of countervailing duties in practice suggest that they tend to appear in industries where the forces of protection are active and are pursuing multiple avenues to obtain it. See Howard Marvel and Edward Ray, *Countervailing Duties*, 105 *ECON. J.* 1576 (1995).

harmful, as it may become the basis for government-to-government "settlement" negotiations that raise prices and achieve effects similar to a cartel.

Exceptional cases may arise, of course, as suggested by the literature on strategic trade policy and related work. If a foreign government employs a subsidy to shift rents to its firms in an industry that earns better than competitive returns, a countervailing duty of sorts may at times be a rational response (as may other policies, such as competing subsidies).³⁸ But without dwelling on that rich and complex literature, suffice it to say that the industries which fit the strategic trade framework are limited in number. Moreover, studies of the use of countervailing duties in practice suggest that they are used primarily in established and often declining industries, where technological progress is limited and returns are, if anything, below the competitive level. Such industries do not fit the strategic trade framework.³⁹ Indeed, nothing in national or WTO law respecting countervailing duties is in any way sensitive to the conditions that strategic trade theory might suggest are relevant to the use of duties for strategic purposes.

Outside of the strategic trade area, the only plausible defense of countervailing duties is the suggestion that they enhance global welfare by discouraging wasteful subsidy practices. Thus, the argument runs, even if the importing nation typically harms itself if one takes a narrow view of countervailing duties, under a broader view all nations are discouraged from wasteful subsidies, global economic welfare increases and all nations on average benefit.⁴⁰

This argument is an empirical claim that cannot be verified or falsified as a practical matter. Nevertheless, there are reasons to doubt that countervailing duties within the WTO system do much to discourage subsidies. As noted earlier, they have been used infrequently and predominantly by only a few nations (most notably the United States). Uncoordinated, unilateral countervailing duties may simply divert subsidized goods to markets that do not employ them rather than discourage wasteful subsidies. The existence of the injury test as a predicate to countervailing duties is a further obstacle to their efficacy in discouraging waste, as it ensures that only a limited number of countries can employ them in response to a wasteful subsidy practice. Of course, nations without an import-competing industry claiming injury and clamoring for protection might have no incentive to employ countervailing duties even if they could use them legally, but this observation simply underscores the reasons why countervailing duties will be used sporadically and in an uncoordinated fashion that greatly reduces their deterrent value. In addition, countervailing duties will never be employed unless the subsidy program becomes known to trading partners, and only then after a lag during which the beneficiaries of the subsidy may derive considerable benefit.⁴¹

³⁸See sources cited *supra* note 9.

³⁹See Marvel and Ray, *supra* note 34; Howard Marvel & Edward Ray, *Countervailing Duties*, in NEW PALGRAVE DICTIONARY OF LAW AND ECONOMICS, VOL. I, 538-41 (Peter Newman ed. 1998).

⁴⁰See JOHN H. JACKSON, *THE WORLD TRADING SYSTEM* 282 (1997).

⁴¹Some of these issues are discussed further in James Hartigan, *Perverse Consequences of the GATT: Export Subsidies and Switching Costs*, 63 *ECONOMICA* 153 (1996); Larry Qiu, *What Can't Countervailing Duties Deter Export Subsidization?*, 39 *J. INT'L ECON.* 249 (1995).

For these reasons, it seems preferable for wasteful subsidy practices to be treated as violations of WTO law, and to be challenged and condemned as such, rather than for importing nations to employ countervailing duties. A successful WTO challenge to a subsidy practice, assuming that the losing nation complies with the ruling, will indeed eliminate the subsidy and the associated economic waste. One could therefore make a strong argument that the provisions of the SCM agreement that authorize and regulate the use of countervailing duties are counterproductive, and that the exclusive remedy for nations adversely affected by a foreign subsidy should be a WTO challenge to the subsidy.

Before embracing this position, however, one must be careful to recollect the inherent weaknesses of WTO law regarding the identification and measurement of harmful subsidies. To the degree that WTO law is incapable of determining which domestic subsidy programs are truly harmful, the notion that WTO dispute panels should get seriously involved in telling governments how they can spend their money is highly problematic. On this rather pessimistic view, therefore, the role of countervailing duties may be primarily to defuse political pressures for action against "unfair" practices while doing little violence to the ability of sovereign governments to act as they wish.

F. Agriculture

Conventional wisdom has it that the agricultural sector is heavily subsidized in most developed nations. Whatever difficulties may arise in determining the net impact of government on industries in general, most observers seem to agree that agriculture is a net beneficiary of government largesse.

It is ironic that the one sector considered to be the most subsidized is subject to the least degree of discipline on subsidies (among goods markets). As noted, both export and domestic subsidies are generally permissible under the WTO Agreement on Agriculture, though subject to negotiated ceilings and some reduction over time.

The absence of tight discipline on export subsidies is unfortunate for the reasons discussed at length earlier. Export subsidies are almost certainly a source of economic distortion, and indeed the agricultural sector affords a case study of how pressures for competitive subsidization have led trading nations down the road of mutually wasteful expenditures.

The resistance to the elimination of domestic farm programs is likely a source of economic waste as well, for much the same reason that any form of protectionism is a source of waste. But as indicated in the discussion of protective subsidies, it is hardly clear that protection through subsidization is any worse from an economic standpoint than other forms of protection. Thus, if the political equilibrium is such that agriculture must be protected, domestic farm programs may be no more troublesome than border measures.

One objection that might be tabled to the continued coexistence of domestic farm programs and protective border measures for the same commodities (assuming that

protection is inevitable) is that multiple protective measures complicate trade negotiations. If country A wishes to bargain for access to the agricultural markets of country B, it is harder to evaluate the benefits of a tariff concession from country B in the face of a subsidy program that also protects farmers in country B. The added transaction costs of negotiation in the face of multiple instruments of protection can be avoided by channeling all protection into a single, transparent policy instrument—this is the essential rationale for efforts in the WTO/GATT system toward "tariffication" of all trade barriers.

Yet, the prevalence of domestic farm programs suggests that border measures alone are inadequate to the task of achieving the anticompetitive purposes compelled by current politics. One need only look at the United States, which is a net exporter of many agricultural commodities, to realize that import restrictions may do little to ensure politically acceptable prices or rates of return to the producers of certain commodities.

Thus, perhaps the best that can be done is to schedule all the protective policies, both subsidies and tariffs, and bargain over both simultaneously to achieve limits on their magnitude. This is the approach of the Agriculture Agreement, and one might reasonably hope that sequential rounds of negotiations over these protective instruments in the agricultural area will produce gradual liberalization, much as the sequence of negotiating rounds under GATT brought great reductions in the tariffs applicable elsewhere.

There is also something to be said for the effort in Annex 2 of the Agriculture Agreement to favor subsidies that do not encourage output. To the degree that subsidies are being granted for reasons that do not relate to the correction of an externality, programs that confer financial benefits on the intended recipients without inducing an expansion of their output may create fewer distortions. The caveat, of course, relates to the fundamental problem of identifying subsidies in the first instance—an output-expanding subsidy might counteract some distortion associated with other tax and regulatory policies. But in the agriculture sector, where most observers believe that net subsidies are present at the outset, efforts to channel farm aid into programs that do not stimulate agricultural production may make good sense.

V. CONCLUSION

The WTO legal system does a good job in ensuring that unanticipated subsidy programs do not frustrate the reasonable expectations associated with negotiated trade commitments. It also embodies a sensible prohibition on export subsidies in goods markets outside of agriculture, a prohibition that might usefully be extended to agriculture and services sectors in the years to come.

The system is far less successful in addressing domestic subsidies. Its criteria for determining which government programs are actionable or countervailable are highly imperfect from an economic standpoint, and the challenges associated with efforts to a better job are vast. It is by no means clear that general principles to sort unacceptable from acceptable domestic subsidy programs can be devised and administered successfully. A better strategy in the end may be to embrace the approach of the

Agriculture Agreement, which treats domestic subsidies as a topic of negotiation and allows nations to agree to reduce them product-by-product.

Similarly, it is unlikely that countervailing duties serve an economically useful purpose. They are simply one more arrow in the quiver of import-competing industries that seek protection, and likely have no systematic value in discouraging wasteful subsidy practices. Whatever the rules that determine which domestic subsidies are permissible or impermissible, an argument can be made for eliminating countervailing duties as a remedial measure and substituting an action against the subsidy within the WTO.

Readers with comments should address them to:

Alan O. Sykes
University of Chicago Law School
1111 East 60th Street
Chicago, IL 60637
Alan_Sykes@law.uchicago.edu

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