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The Limited Economic Case for Subsidies Regulation

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Think Piece

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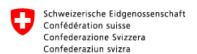
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ABSTRACT

A compelling case can be made for the principle, originally developed in the non-violation cases and now in Article 5 of the Agreement on Subsidies and Countervailing Measures (ASCM), that a new and unanticipated subsidy program to import-competing firms nullifies or impairs tariff bindings negotiated on competing products. The other existing rules of general applicability in the ASCM are highly flawed from an economic standpoint. The specificity test is quite imperfect, as industrial targeting is a weak marker for inefficient government support for industry, and governments can often achieve identical economic results with programs that pass muster under the specificity test by altering their form and not their substance. The "automatic specificity" of export subsidies and import substitution subsidies is questionable. The standards for tax subsidies are arbitrary and incoherent. It is not realistically possible to fashion rules that distinguish government programs that are an efficient expression of other-regarding citizen preferences from programs that distort resource allocation. The expired safe harbor rules are problematic because of the fungibility of money. Subsidy rules cannot identify the net inefficiencies caused by government tax and regulatory policies as a practical matter, and inevitably look myopically at programs in isolation, masking or ignoring the net effects of government on industrial competitiveness and efficiency. Enforcement is also highly problematic in a system such as the WTO that depends on member states to bring complaints, as the private incentive to bring complaints may bear little or no relation to the social value of complaints.

There are no simple solutions to these problems. Distortions are easy to isolate in economic models of industries that start from a position of competitive or imperfectly competitive equilibrium without any role for government, and are then altered by some single government intervention that either creates or remedies some market inefficiency. But once the myriad functions of government are taken into consideration and understood to operate in the background of any real-world industry, it is a difficult task in any given case to determine whether the net effect of government is to distort industry price and output and, if so, in what direction. It is unlikely that panels of legal experts can undertake this task successfully under any imaginable set of generally applicable rules. And without a completely new approach to enforcement, there is no reason to believe that the cases brought by WTO members under any set of rules will be economically productive from a global standpoint.

A case can be made for additional sector- or industry-specific negotiations on subsidies where a global consensus exists that government support is excessive or inadequate. This avenue seems more promising in many respects but is not without its own potential pitfalls.

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LIST OF ABBREVIATIONS

ASCM Agreement on Subsidies and Countervailing

Measures

EU European Union

GATS General Agreement on Trade in Services
GATT General Agreement on Tariffs and Trade
ICTSD International Center for Trade and

Sustainable Development

R&D research and development

US United States

WTO World Trade Organization

INTRODUCTION

The regulation of subsidies varies widely across legal systems. The United States (US) federal system takes a largely laissez faire approach, with very few constraints on the ability of state governments to employ subsidies to favor particular domestic industries or to attract out-of-state industries. The European Union (EU) lies at the other end of the continuum, with its elaborate state aid rules, extensively enforced. The World Trade Organization (WTO) system for trade in goods is intermediate, with extensive rules in place between the Agreement on Subsidies and Countervailing Measures (ASCM) and the Agreement on Agriculture, enforced in limited fashion in response to member state complaints. The WTO is somewhat schizophrenic on the matter, however, with no rules in place under the General Agreement on Trade in Services (GATS) on service sector subsidies (except for the possibility of a non-violation complaint).1

The wide variation in the legal approach to subsidies regulation suggests that no one approach is self-evidently ideal. It is well known that subsidization can distort resource allocation, and an agreement among nations to eschew distortionary subsidies can in principle enhance mutual economic welfare. Subsidies also beget objections from various interest groups, which may lobby for subsidies regulation irrespective of their overall economic impact. But it is well known that subsidies can serve useful purposes, addressing a range of market failure and externality problems in the economy. Closely related, the task of identifying "subsidies" and distinguishing them from the legitimate and desirable activities of government is no easy task.

In this brief commentary, I focus on the economic arguments for subsidies regulation, largely putting aside the political dimension. The core arguments can be divided into two categories—arguments for subsidies regulation to avert "negative externalities" for other nations/states that result from subsidies, and arguments for subsidies regulation to prohibit or discourage economically "inefficient" subsidies, irrespective of their net effects on other nations/states. I conclude that the only compelling case for regulation arises with respect to subsidies that undermine negotiated market access commitments. The economic case for more extensive forms of subsidies regulation is weak for both theoretical and practical reasons, although an argument can perhaps be made for narrow agreements in particular sectors.

Section 1 considers the international externality argument for subsidies disciplines. Section 2 addresses the inefficiency or "hands-tying" argument for subsidies disciplines. Section 3 then reviews the implications for legal reform, including both generally applicable rules and alternative industry- or sector-specific options.

EXTERNALITY ARGUMENTS

Much of the modern economic theory of international trade agreements emphasizes their role in addressing international externalities associated with trade policy. The dominant "terms of trade" theory suggests that governments impose a negative externality on trading partners when they enact trade restrictions such as tariffs. A tariff often forces foreign exporters to lower their prices to remain competitive. Assuming that governments focus on the economic well being of their own citizens and not foreigners, the loss of profit for foreign firms is ignored by governments acting unilaterally (and thus "externalized"). The loss of profit also reflects deterioration in the "terms of trade" for foreign nations (the ratio of the price received for their exports to the price paid for their imports), and a concomitant reduction in their economic welfare. International trade agreements provide an opportunity to eliminate these negative externalities through the exchange of reciprocal market access commitments (Bagwell and Staiger 2002).

Extending this logic to the realm of subsidies, a case for international legal regulation of subsidies would arise when subsidization imposes negative externalities on other nations in the trading community through deterioration in their terms of trade (or the economic equivalent). Subsidization can indeed have such an effect, but it may also have the opposite effect.

SUBSIDIZATION IN COMPETITIVE MARKETS

Consider first the case of subsidies to firms operating in competitive markets, which affords a reasonable approximation to conditions in many industries. It is useful to distinguish between subsidies to firms that export, and subsidies to import-competing firms.

Subsidies to exporting firms

When a government subsidizes an exporting firm in a competitive market, and does so in a manner that reduces the firm's marginal costs (whether through a domestic subsidy or an export subsidy), the firm will tend to reduce the prices of the goods or services that it exports.² This represents deterioration in the terms of trade for the

Sykes (2010) includes a survey of the three legal systems.

If the subsidy does not affect marginal costs (short- or long-run), it will have no effect on prices or on trading partners.

exporting country, and an improvement in the terms of trade for the rest of the trading community as a whole. Put differently, such a subsidy confers a positive externality on the rest of the world (Sykes 1989). This observation is the genesis of the quip that importing nations should respond to subsidization of their imports by "sending a thank-you note to the embassy."

It bears emphasis that this proposition holds true for both domestic and export subsidies. Export subsidies are treated especially harshly under the WTO system governing trade in goods. It is entirely possible that many export subsidies are indeed inefficient from an economic standpoint. But any net inefficiency is borne by the exporting nation in competitive markets. The rest of the world receives a net benefit. Moreover, it is entirely possible that some export subsidies are efficient. In particular, if barriers to trade of other types (tariffs and non-tariff barriers) reduce trade below its economically efficient level, export subsidies can expand trade toward that level and enhance global efficiency.

To be sure, not all interest groups abroad will benefit when firms that export are subsidized. Firms that compete with subsidized exports will suffer a loss of profit (albeit more than offset by the gains to buyers of the subsidized goods), and may raise objections to the subsidized competition. If these firms are well organized politically and the beneficiaries of the subsidization are not, importing governments may be moved to object to subsidization and to pursue international agreements to eliminate it, or undertake unilateral countermeasures (countervailing duties) to counteract it. Likewise, nations engaged in competing efforts at export subsidization may realize that they can benefit from an agreement to cease those efforts (albeit at the expense of the rest of the world) (Bagwell and Staiger 2002: ch. 10). But the fact remains that the rest of the world in the aggregate benefits from the subsidization. There is no economic case grounded in "negative externalities" for eliminating it.

If countervailing duties are allowed, the point becomes even stronger. Any importing nation that perceives some negative impact from subsidized foreign exports can impose a countervailing duty to offset the subsidy and capture it for the national treasury.

Subsidies to import-competing firms

A subsidy to import-competing firms that lowers marginal costs will also tend to cause a reduction in their prices. Foreign exporters selling into the home markets of subsidized import-competing firms will then have to lower their prices to remain competitive. These price reductions represent a deterioration in the terms of trade of trading partners, and are akin to the negative terms of trade externality associated with tariffs. At first blush, therefore, a case for international cooperation to address this type of subsidization can be made.

One difficulty, however, is that many policy instruments can have comparable effects on the terms of trade. Tariffs, quotas, discriminatory domestic taxes and regulations, and so on, all have the potential to burden foreign exporters in a way that forces them to lower their prices. International discipline over one policy instrument that produces negative externalities may be quite pointless if close substitutes are unconstrained. The original General Agreement on Tariffs and Trade (GATT) recognized this problem squarely, and coupled the negotiated tariff bindings with disciplines on quotas, domestic taxes, and regulation. It left an apparent loophole for domestic subsidies in GATT Article III(8)(b), but quickly evolved the principle that a new subsidy to importcompeting firms that undermines the value to trading partners of a negotiated tariff binding will support a nonviolation complaint. This principle is now enshrined in Article 5(b) of the ASCM.

This general structure makes economic sense. New subsidies undermine negotiated market access commitments as much as would a discriminatory tax in violation of the national treatment obligation in GATT Article III or a new quota in violation of GATT Article XI. For products not subject to tariff bindings, however, little is gained by prohibiting subsidies to import-competing firms—the same measure of protection could just as easily be obtained through a (WTO-legal) tariff. Only if the tariff has been bound does a new subsidy have the potential to upset a negotiated bargain.

To be sure, difficulties may arise in defining what constitutes a "new" subsidy as a legal matter. One must distinguish existing or reasonably foreseeable government programs from those that are unanticipated and impair the reasonable market access expectations of trading partners. This task may be relatively easy if the new subsidy program follows a tariff binding closely in time and has no attached rationale other than the promotion of the beneficiary industry. But are market access expectations protected indefinitely (consider a new subsidy program 50 years after the last negotiated tariff binding on competing products)? And what if the "new" subsidy program responds to new information identifying market failures that are bona fide and were unrecognized at the time of the pertinent tariff negotiations (for example, the subsidy addresses underinvestment in research due to changes in the efficacy of intellectual property protection)? Perhaps tariff negotiators should always "expect" that governments can and will respond to such new information (see Staiger and Sykes 2013).

In sum, putting aside the challenges of identifying which programs are reasonably foreseeable, a case for disciplining subsidies to firms operating in competitive markets can be made on the basis of net negative international externalities if (a) the subsidy is given to import-competing firms; and (b) those firms compete with goods or services that are the subject of negotiated market access commitments. Political demands for disciplines may arise in other scenarios, but clear economic justification for them is lacking in competitive markets if the goal is to address international externalities.

IMPERFECTLY COMPETITIVE INDUSTRIES AND STRATEGIC TRADE

In the last few decades, much work has been done on international trade in imperfectly competitive industries. The "strategic trade" literature suggests some further wrinkles relevant to subsidies regulation, including the possibility that subsidies may have the potential to shift supra-competitive returns from foreign firms to domestic firms, or to enable the realization of positive externalities in the domestic economy.

As a stylized example of the profit-shifting possibility, I will summarize an example developed by Krugman (1987) based on the large-body commercial jet aircraft industry. The industry is a global duopoly (Boeing and Airbus). Assume that a new model aircraft is to be developed with certain characteristics relating to passenger capacity, cruising distance, and so on. Assume further, however, that economies of scale in the industry are so large that only one firm can operate profitably in the production of the new model. If a single firm enters the market, it will earn handsome profits as the sole producer. But if both enter, both will lose money. In this scenario, the first-mover that can commit to entry will scare off the other entrant and reap the profits.

Now assume that the government of one producer, say, the EU, recognizes this situation and decides on the following policy—it commits to subsidize Airbus in an amount that ensures its profitability even if Boeing enters the market. In response, Airbus will enter regardless of what it expects Boeing to do. Knowing that Airbus will enter, the rational strategy for Boeing is not to enter the market. The result is that a subsidy to Airbus—perhaps a small one if that is all that is necessary to ensure its profitability after entry—guarantees that it will capture the market for the new aircraft and potentially earn a very large profit as the sole producer.

Here, the subsidy can create the equivalent of a negative terms of trade externality for the rest of the world. Imagine that the price to buyers of the new aircraft is the same whether produced by Airbus or Boeing. Then, the only effect of the subsidy is to shift profit from Boeing (and the US) to Airbus (and the EU).

A similar situation can arise with subsidies to firms that produce positive local externalities. Suppose, for example, that a subsidy to certain high-tech firms results in a concentration of such firms that yields a highly innovative and profitable local industrial development (the Silicon Valley story). Its success results from a high concentration of human capital that is locally mobile across firms and aids the pace of innovation. It is advantageous to have such industrial development within one's own borders if the positive spillovers among firms arise locally but not internationally, and subsidies to bring it about can shift associated economic rents toward the subsidizing country.

Accordingly, the proposition that subsidies to exporting firms yield positive net externalities for the rest of the world, which holds for competitive markets, does not necessarily hold for imperfectly competitive industries in which subsidies can shift rents from foreign firms to domestic firms or to industries in which important positive local externalities arise (in violation of the "no externalities" assumption of the competitive model). This observation offers some support for international subsidies disciplines, but it is heavily qualified. In particular, the empirical importance of these sorts of subsidies is unclear. Certainly, the industries that we regard as most heavily subsidized—especially agricultural industries—are not likely to fit the strategic trade paradigm. Subsidies tend to be given to industries that are weak or struggling more than to the highly profitable firms in imperfectly competitive markets or technologically progressive firms that generate large local spillovers. General disciplines on all subsidies therefore cast far too broad a net to be justified by the special cases of strategic trade. Efforts to craft disciplines limited to the industries that plausibly fit the strategic trade paradigm would face a daunting problem of how to identify such industries reliably.

Moreover, the mere fact that industries are imperfectly competitive or produce positive local spillovers is not a sufficient condition for an inference that subsidies to exporting firms produce negative international externalities. Subsidies will typically lead to a net expansion of industry output. When output is restricted below its efficient level due to imperfect competition, or because production generates positive local externalities that firms do not capture in their profit streams, subsidies can move it toward its optimal level. The increase in output will often yield net benefits due to lower prices.

AGGREGATE EFFICIENCY ARGUMENTS

Some supporters of subsidies disciplines favor them not because of the negative international externalities associated with subsidies, but because many "subsidies" are economically wasteful. Even if the net economic waste associated with subsidies is borne by the subsidizing government and its taxpayers (and the external effects are positive, as discussed above), one might argue that rules to prohibit wasteful subsidies are in everyone's best interest. In effect, subsidies disciplines "tie the hands" of governments that are otherwise inclined to waste money on inefficient subsidies. To the degree that most governments have such tendencies at times, subsidies disciplines can benefit most nations—the benefit comes less from constraints on foreign governments than from constraints on the domestic government (Hufbauer and Erb 1984; Jackson 1987).

Although plausible, this argument for subsidies disciplines has two important weaknesses. First, an effective system of discipline over inefficient subsidies requires a reasonably reliable set of principles for distinguishing wasteful subsidies from the legitimate and desirable activities of governments. Second, to the degree that the system is intended to discourage member governments from wasting money in a manner that often creates positive externalities for other member states, enforcement may fail.

IDENTIFICATION OF WASTEFUL "SUBSIDIES" IS INHERENTLY UNRELIABLE

All governments engage in expenditures that affect production costs for private firms. Public education, highway networks, public works projects, basic scientific research, and so on can enhance the competitiveness of domestic firms. Likewise, governments engage in numerous activities that raise production costs in the private sector, including a wide range of tax and regulatory measures. From the myriad ways that governments benefit and burden their domestic firms, how can one identify the activities that constitute undesirable "subsidies"?

The general approach of the WTO (with many similarities in EU state aid law) is to ask whether the government supplies some benefit that firms cannot obtain through private market transactions, and to ask further whether the government program at issue is "specific," a term that loosely captures the notion of industrial targeting. Some additional principles apply for export and import substitution subsidies (defined to be "specific" in all cases), for tax subsidies, and for three categories of safe harbor subsidies (the safe harbor rules have been allowed to expire).

For a number of reasons, this approach to identifying problematic subsidies is seriously deficient from an economic perspective. Even worse, the problems are likely irremediable.³

The specificity test is flawed

The specificity test asks whether the program at issue is "specific to an enterprise or industry or group of enterprises or industries" (ASCM Article 2.1). At its broadest level, the specificity test has some economic logic. Were a government to subsidize all goods and services uniformly, their relative prices would not change and exchange rates would adjust to keep trade flows the same—foreign countries would not be affected. In reality, of course, government assistance to industry is never so uniform, and different industries benefit differentially from virtually any government "subsidy" program.

Even so, the specificity test insulates certain government activities, which many governments engage in and are widely

perceived to be desirable and legitimate, from challenge. Public education, road construction, public works, and so on, will not be considered "specific" under most circumstances.

The specificity test is nevertheless both significantly overinclusive and under-inclusive of economically wasteful subsidies. With regard to over-inclusiveness, it is well known that subsidies may be a useful policy instrument to remedy certain market failures, such as underinvestment in research due to imperfect intellectual property rights or underinvestment in abating external harms such as pollution. Government assistance for such reasons may well appear "specific." The recent support for the financial sector during the financial crisis may be another example of a "specific" assistance that avoided serious external harms that would have followed the collapse of major financial institutions. With regard to under-inclusiveness, programs broadly available are often deemed non-specific even if they have the potential to distort production and trading patterns significantly—programs for a broad range of agricultural industries may be deemed non-specific, for example, even if they result in substantial inefficient expansion of farm production.

The specificity test also exalts form over substance. A government that wishes to promote a set of industries can simply bundle the support into a single "program" for a range of enterprises rather than enacting individual programs for each industry, and thereby avoid a finding of specificity. "Specificity" can thus turn on economically irrelevant details about how the support program was enacted into law.

Net benefits are neither observed nor observable

It is often straightforward to determine whether a government program, viewed myopically, benefits a firm relative to a market benchmark test. But firms are both benefited and burdened by a vast array of government expenditure, taxation, and regulatory programs. These benefits and burdens vary from country to country. Firms that receive benefits under a particular "subsidy" program in country X may bear tax or regulatory costs that competitors in country Y need not bear. Thus, even if country Y competitors do not receive comparable "subsidies," lower taxes or weaker regulations may actually afford them a net competitive advantage over their "subsidized" competitors in country X. Such a competitive advantage may or may not be efficient depending on whether the international heterogeneity in tax and regulatory polices has its own efficiency justification.

If the goal of subsidies disciplines is to achieve an efficient allocation of resources, measured against a benchmark where economic activity is undistorted by government intervention, the issue in each case should be whether government activity has created an inefficient, net competitive advantage for its firms. The task of assessing the net impact of governments on the competitive position of their industries—the total impact associated with all government spending, tax and regulatory activity—is staggeringly difficult, so much so that no body of subsidies regulation has ever attempted the task, much less to assess whether the observed differences in taxation and regulation are efficient or inefficient. Instead, the question whether specific benefits are offset by tax and regulatory burdens or by an absence of non-specific government assistance is simply ignored. No other approach is administratively feasible, but the consequence is that "subsidization" can be found, or not found, irrespective of the net impact of governments on competitiveness and its efficiency implications.

Distortions are indistinguishable from legitimate altruism

Consider a country in which the polity solidly supports programs to aid small businesses, or family farms, or companies that create "green" jobs. Are these programs distorting the economy? Or are they responding to genuine underlying preferences among citizens as to how they would like their tax dollars to be spent? It is at least possible that political support for programs that favor particular industries is grounded in honest preferences to assist a particular group of people or to promote some broader social objective. If the citizens are "willing to pay" for the survival of local family farms, for example, one could view the resulting subsidy program as an efficient mechanism for satisfying such other-regarding preferences rather than an economic distortion. Of course, subsidy programs may be accompanied by high-minded rhetoric even if they result from interest group capture of the political process, and are more properly viewed as economic distortions. Subsidies regulation is unlikely to be able to distinguish these scenarios, and once again the issue is ignored as a practical matter (Schwartz and Harper 1972).

Tax subsidy rules are incoherent

Market benchmarks often afford some plausible basis for determining whether firms receive a "benefit" from a government program. Interest rates for government loans can be compared to those for private loans, for example, or the government price for some good or service can be compared to the price available in the private market for the same thing. But there is no market benchmark for deciding whether a tax subsidy arises. Rather, the test is whether "government revenue that is otherwise due is foregone" (ASCM Article 1.1[a][ii]). Tax subsidies then arise when some firm pays less tax than it would "otherwise." The benchmark for the situation that would prevail "otherwise," however, is largely arbitrary and dependent on the form rather than the substance of government tax policies.

If a government decides not to tax foreign source income for its domestic corporations doing business abroad, for example, no subsidy arises because nothing is "otherwise due." But if the government enacts a law taxing foreign source income, and then exempts many or most companies from the tax, a subsidy may be found (in fact, a prohibited export subsidy) even though its corporations may operate at a competitive disadvantage relative to corporations based in countries that do not tax foreign source income at all. Similarly, if a government enacts a tax credit program limited to a handful of industries, it engages in subsidization. But if the government simply sets a lower uniform tax rate for all industries, and then imposes higher taxes on the industries that would not have received "credits" under the alternative regime of a higher uniform tax, there is likely no subsidy even though the two types of programs have identical economic impact.

The lesson is that the benchmark for "otherwise due" is dependent on the form rather than the substance of tax policy. One country may be deemed to engage in tax "subsidization" while another country may not, even if their tax policies are substantively identical, or if the "subsidizing" country actually imposes a higher tax burden on its firms.

The prohibited subsidies categories are unsound

As noted, import substitution subsidies and export subsidies are automatically "specific" and prohibited under WTO rules (ASCM Article 3). Neither prohibition makes much economic sense.

Import substitution subsidies are those "contingent (in whole or in part) upon the use of domestic over imported goods" (ASCM Article 3.1[b]). A government might provide, for example, that farmers receive a cash payment for the purchase of domestically produced farm equipment but not imported farm equipment. Such a subsidy can disadvantage imports to be sure, distorting resource allocation, and also creating a negative terms of trade externality, as described in Section 1. The difficulty is that a nearly perfect substitute exists that is not prohibited—namely, a subsidy to the domestic producers of farm equipment. If the domestic producers do not export, it is possible to precisely replicate the market equilibrium under an import substitution subsidy with a properly calibrated domestic producer subsidy. What is the logic of prohibiting one but explicitly allowing the other (via GATT Article III[8][b])?

Export subsidies, also as noted in Section 1, will often produce positive net international externalities, even if they distort overall resource allocation. Likewise, when they arise in an environment where international trade volumes are "too small" relative to the free market ideal due to trade barriers, export subsidies can improve global resource allocation by expanding trade toward its efficient level. Once again, the logic of treating them as a prohibited category is not apparent.

Safe harbors elide the fungibility of money

The safe harbor or "green light" categories under ASCM Article 8 were plainly an effort to enable governments to carry out subsidies programs that might otherwise be condemned when undertaken for purposes that might be seen as socially efficient. Two of the three green light categories—research and development (R&D) subsidies and subsidies for compliance with environmental regulations—relate to textbook examples of market failures, and for which subsidies may be an efficient response (at least "second-best"). The third category—subsidies for disadvantaged regions—is less likely to include subsidies that are efficient in the conventional sense, but may nevertheless be part of a reasonable and democratically legitimate strategy for addressing income inequality.

The difficulty is that many firms undertake R&D, many must comply with environmental regulations, and many operate at least in part in areas that might be defined as "disadvantaged" relative to others in the relevant jurisdiction. Safe harbor categories may thus open up the opportunity to grant subsidies quite broadly within the economy, and may become a pretense for subsidies motivated by other objectives. To offer a possible example, suppose that a country "subsidizes" its solar power equipment industry. Its stated goal is to encourage "green" energy to abate the problem of greenhouse gas emissions, but its true motivation is to achieve market power for its nationals in that industry and the attendant monopoly profits. Can such subterfuge be identified reliably and policed?

In short, money is fungible. The true rationale for a subsidy—whether high-minded or not—is often unknowable, and subsidies in the name of high-minded objectives may or may not actually promote them.

WTO ENFORCEMENT IS WEAK AND INCONSISTENT

If subsidies disciplines aimed at enhancing resource allocation are to succeed, they must be enforceable. In an international arrangement such as the EU, the central authorities in Brussels can undertake the task and can perhaps pursue enforcement efforts that the member states do not necessarily support. In the WTO, however, no central enforcer exists and enforcement depends on member state complaints. There is little reason to think that complaints will arise against "inefficient" subsidies, while "efficient" subsidies escape attack.

Instead, complaints will tend to arise when a well-organized foreign interest group, located in a jurisdiction with the resources to bring a case, persuades its government to initiate legal proceedings. It is easy to imagine scenarios where competing exporters in some industry, or import-

competing firms, may push for a complaint against export or domestic subsidies even if they have a favorable impact on global resource allocation. Likewise, if the net international externalities from subsidies are positive, as they frequently will be, it is easy to imagine that no country will choose to pursue a case, even if the subsidies are inefficient from a global perspective (the net inefficiency being borne by the subsidizing government).

This is a familiar problem in legal systems that depend on private enforcement—the private incentive to sue rarely maps well with the set of cases in which it is socially efficient. If the goal of subsidies disciplines is to "tie the hands" of governments that are inclined to waste money on inefficient programs, the fact that such programs often produce positive international externalities is a potentially serious obstacle to effective enforcement, as is the fact that even efficient subsidies will often produce adverse effects abroad that may motivate a complaint.

IMPLICATIONS AND OPTIONS

Recapitulating the analysis above with a focus on policy options, the following conclusions emerge.

- a) A compelling case can be made for the principle, originally developed in the non-violation cases and now in ASCM Article 5, that a new and unanticipated subsidy program to import-competing firms nullifies or impairs tariff bindings negotiated on competing products.
- b) The other existing rules of general applicability in the ASCM are highly flawed from an economic standpoint. The specificity test is quite imperfect, as industrial targeting is a weak marker for inefficient government support for industry, and governments can often achieve identical economic results with programs that pass muster under the specificity test by altering their form and not their substance. The "automatic specificity" of export subsidies and import substitution subsidies is questionable. The standards for tax subsidies are arbitrary and incoherent. It is not realistically possible to fashion rules that distinguish government programs that are an efficient expression of other-regarding citizen preferences from programs that distort resource allocation. The expired safe harbor rules are problematic because of the fungibility of money. Subsidy rules cannot identify the net inefficiencies caused by government tax and regulatory policies as a practical matter, and inevitably look myopically at programs in isolation, masking or ignoring the net effects of government on industrial

competitiveness and their efficiency. Enforcement is also highly problematic in a system such as the WTO that depends on member states to bring complaints, as the private incentive to bring complaints may bear little or no relation to the social value of complaints.

There are no simple solutions to these problems. Distortions are easy to isolate in economic models of industries that start from a position of competitive or imperfectly competitive equilibrium without any role for government, and are then altered by some single government intervention that either creates or remedies some market inefficiency. But once the myriad functions of government are taken into consideration and understood to operate in the background of any real-world industry, it is a difficult task in any given case to determine whether the net effect of government is to distort industry price and output and, if so, in what direction. It is unlikely in my view that panels of legal experts can undertake this task successfully under any imaginable set of generally applicable rules. And without a completely new approach to enforcement, there is no reason to believe that the cases brought by WTO members under any set of rules will be economically productive from a global standpoint.

c) In response to these rather pessimistic conclusions, other participants in the International Center for Trade and Sustainable Development (ICTSD) Subsidy Disciplines project have encouraged me to offer further thoughts on the possibilities for what might be termed "second-best" rules, or perhaps sector-specific arrangements. Of course, the WTO has already seen efforts of the latter sort in the Agreement on Agriculture.

As in agriculture, it is entirely plausible that the trading community may come together and reach a consensus that certain industries or sectors receive excessive government support. Likewise, it is possible that the trading community will reach a consensus that some forms of industrial activity require greater encouragement, and that because of international spillovers, governments do not offer enough encouragement on a unilateral basis, perhaps hoping to free ride on the efforts of others.

Examples of the first problem, addressed by others in the ICTSD working group, might include subsidies to fishing operations that exacerbate the well-known problem of overfishing in the international ocean commons. Economic theory suggests that competitive forces will lead to overfishing even without subsidization in fisheries where property rights in fish do not exist until they are caught (Cooper 1975). Subsidies for the production of fossil fuels might also fall into this category because of their tendency to increase carbon emissions.

Examples in the second category might include industrial research in areas where the returns to research are difficult to appropriate because of imperfect intellectual property

protection, as well as industries that suffer from irremediable imperfect competition that reduces output below the competitive level (perhaps industries that enjoy large-scale economies where antitrust solutions to increase the number of firms are unrealistic). And if it is infeasible to tax energy consumption that produces socially harmful carbon emissions, a subsidy to alternative forms of energy may serve as a second-best response.

Whether the challenge is to increase or decrease government support for industry, one can imagine industry- or sectorspecific accords requiring governments to take appropriate measures. Such narrow agreements have at least two advantages over generally applicable rules such as those in the ASCM. First, they can avoid the Herculean problem of crafting rules to identify desirable or undesirable subsidies in the abstract. Instead, they can simply identify particular government programs that the international community agrees provide excessive or inadequate support, and embody commitments to curtail or increase them as appropriate. A rough analogy is to GATT Article II. GATT makes no effort to specify a general set of rules to determine whether a tariff is "desirable" or not, but simply allows nations to negotiate product-specific bindings. Similarly, accords on subsidies might specify upper or lower bounds on government support in particular industries as appropriate, and then (like GATT) plug potential loopholes by barring the expansion or curtailment of government programs that are close substitutes for the bound programs and might undermine the bargain (just as GATT precludes the substitution of quotas for bound tariffs, or the substitution of discriminatory domestic taxation and regulation).

The second advantage of these narrower arrangements is that they would be the product of careful global scrutiny in each covered area, and be accompanied by a consensus that government support was excessive or inadequate. Industry expertise can be brought to bear in the process, and the likelihood of a sound judgment being reached is enhanced relative to a system in which legal arbitrators with no industrial expertise seek to apply deeply flawed rules of general applicability.

To be sure, pitfalls exist. Most importantly, subgroups of nations may have national interests that diverge from the global interest, and may dominate the negotiations. As suggested earlier, the negotiated prohibition on export subsidies in the ASCM can enhance or diminish global economic welfare, depending on whether it moves global trade and output closer to or farther away from the global optimum. Bagwell and Staiger (2002) hint that the broad prohibition on export subsidies may in part serve to enhance the position of de facto export cartels by reducing the ability of exporting nations to compete with each other on price.

Similar missteps might arise in industries in which the negotiations are dominated by major players with strong national interests that diverge from the global interest. Suppose, for example, that the US and EU were to settle the

longstanding Boeing-Airbus dispute by agreeing to curtail certain programs in each jurisdiction that lower the marginal costs of production for their respective national champions. Would the resulting (higher) duopoly prices for large-body commercial jet aircraft yield an increase or reduction in global welfare? The latter outcome is a distinct possibility. Accordingly, it is important that any industry- or sector-specific agreements reflect a genuine global consensus, and not the narrow interests of few dominant players.

One must also reflect on enforcement. The earlier discussion makes the point that the national benefits for WTO members that bring complaints under any generally applicable set of rules can deviate importantly from the global benefits. Even if the rules could identify inefficient subsidies reliably, it is by no means clear that complaints against them will be brought, for example, when those inefficiencies are accompanied by positive international externalities. It is important for narrow agreements on subsidies to be struck in a way that incentivizes at least some parties to bring complaints if other parties deviate inefficiently from their commitments.

CONCLUSION

The case for general subsidies disciplines to address the problem of "subsidies" across the board is a weak one. The game is probably not worth the candle. The one area where discipline seems warranted is with respect to new subsidies that undermine the security of negotiated market access commitments. That principle has been present under GATT almost since the founding, and seems well accepted.

Perhaps a case can be made for additional sector- or industry-specific negotiations on subsidies where a global consensus exists that government support is excessive or inadequate. This avenue seems more promising in many respects but is not without its own potential pitfalls.

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