RESOLVING THE NORTH AMERICAN SUBSIDIES WAR*

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I. BACKGROUND

In negotiating the Canada-U.S. Free Trade Agreement (FTA), a critical objective for both sides was to defuse and better manage the difficult issues surrounding industrial and regional development subsidies and the application of countervailing duties. During the 1960s and 1970s Canadian federal and provincial governments became increasingly engaged in activist policies which included incentives to improve the competitiveness of manufacturing and foster development in the Atlantic Provinces, the Gaspe and rural areas elsewhere.[1] When U.S. business and/or labor interests were adversely affected, the United States often responded with countervailing duties.[2] Part of a broader offensive against what they saw as unfair trading practices, the scope of actions targeted by the Americans gradually expanded from explicit export subsidies to domestic production subsidies

*A list of acronyms used in this article is provided on page 25.

and then R&D grants for the development of specific products.[3] Most significantly, the United States assessed countervailing duties on regional assistance to a Michelin tire plant in Nova Scotia in 1973, and it countervailed a Canadian product development subsidy for a liquid optic sensing device in 1979.[4] During the 1970s, the U.S. federal government also engaged in a variety of industrial assistance programs. Aids to the steel, footwear, textile, shipbuilding, automobile, and aircraft industries[5] followed the emergence of an activist regional agenda during the Johnson administration in the 1960s.[6]

Canadians and other U.S. trading partners did not view the application of countervailing duties by the United States as wholly objective and perceived its actions as part of an expanding system of U.S. contingent protection.[7] In the FTA negotiations, Canada initially sought a working definition of what constituted a prohibited subsidy and exemption from U.S. countervailing duties and other forms of contingent protection.

Following the elections of Ronald Reagan in 1980 and Brian Mulroney in 1984, federal aids to enterprises declined in both countries, and the locus of initiative in industrial and regional policymaking--outside of agriculture, R&D and defense technology--shifted somewhat toward the states and provinces. In Canada, the necessary apparatus was already quite well developed, as the provinces had long been active.[8] In the United States, increasing concerns about the international competitive competence of American manufacturing, Reagan Administration agnosticism toward industrial policies, the dominance of the Democratic Party in most state houses, and a consensus within the Democratic Party that governments could and should play a positive role in economic development combined to impel more aggressive state programs.[9] Although not all provincial and state programs may be characterized

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as trade distorting and inefficient, at least some of what goes on cannot be justified on economic grounds. However, tailoring packages of benefits and services to keep or attract manufacturing enterprises falls squarely in the latter category.[10]

As things stood at the dawn of the FTA negotiations in 1986, the primary concerns were the fair application of subsidy / countervailing duties by competent authorities in the United States and Canada and the costly competition among the states and provinces for plants. The optimal outcome would have been: (1) a strong discipline defining what federal, state and provincial governments could and could not do to keep and attract businesses, and (2) refinements in existing countervailing duty administration that would ensure confidence in the fairness of actions involving programs and benefits that neither fell in the permitted or prohibited categories.

Although both Americans and Canadians said they wanted a discipline on the use of subsidies, two problems constrained negotiators. First, it would be difficult for the United States to accept a meaningful bilateral discipline that would affect 100 percent of its exports but only one fifth of the imports coming from Canada.[11] Second, Washington and Ottawa had strong political reasons to tread carefully when seeking constraints on the economic activities of the states and provinces.[12] In the end, FTA negotiators settled for half a loaf. FTA chapter 19 established binational review of subsidy/countervailing duties to ensure that national laws would be faithfully applied, free from political interference and technical errors.

When the FTA was inaugurated in 1989, this mechanism was intended as a stop gap since the FTA committed the two governments to negotiate a truly binational subsidies regime within five to seven years. These negotiations never got off the ground because the principals agreed to await the outcome of the Uruguay Round subsidy talks where a strengthening of the General Agreement on Tariffs and Trade (GATT) multilateral discipline was under discussion. In the meantime, Mexico requested free trade talks and the North American Free Trade Agreement (NAFTA), implemented in 1994, essentially made permanent the FTA system of binational review. The relevant FTA and NAFTA chapters are both numbered "19."[13]

Although the FTA and NAFTA chapter 19's inspired more confidence in the integrity of national subsidy / countervailing duty administration, the problem of locational incentives and state/pro-

vincial industrial predation continued. A multilateral solution under the auspices of the new World Trade Organization (WTO)[14] could overcome the two obstacles noted above: the United States could agree to limit the benefits it bestows on all of its exports in exchange for similar constraints on the subsidies offered by most of its significant foreign competitors. The substantial benefits to be achieved by curbing European and Asian subsidies, as well as from a broad multilateral trade agreement, might provide Washington and Ottawa with enough leverage to persuade state and provincial governments to accept an armistice, or at least new rules of engagement, in the North American subsidies war. The Uruguay Round Subsidies Code[15] implemented in 1995 will provide some discipline on actions of states and provinces; however, when seen in the context of contemporary patterns of subnational subsidies and industrial organization, this new code is unlikely, by itself, to provide a satisfactory solution for U.S.-Canadian trade.

After the drafting of the Uruguay Round subsidies code had been completed, the United States, Canada and Mexico undertook additional negotiations as required by NAFTA chapter 19. Although the final report has not yet been released, it will only contain adjustments and marginal improvements in the current regime, and this is truly unfortunate. The adjustments imposed by corporate downsizing, new technologies and the shift of labor-intensive activities to low-wage locations are only intensified by NAFTA and the Uruguay Round Agreements implemented in 1995, and subnational governments continue to labor under relentless pressures to defend their employment bases by offering special benefits to multinational corporations. The United States and Canada could craft a solution that is consistent with, but goes beyond, the Uruguay Round subsidies code.

The European Union (EU) has such a mechanism to deal with virtually all kinds of subsidies offered by national and subnational governments that may affect intracommunity trade; however, it entails more reliance on supranational authority in the form of an EU commission than either the U.S. Congress or the Canadian Parliament are likely to accept. Nevertheless, the EU system has some desirable characteristics that could be adapted by the United States and Canada. In the end, a discipline that focuses primarily on special incentives to attract mobile corporate capital and technological know-how, coupled with an enforcement mechanism that acknowledges the inherently political and non-economic nature of

decision-making in this realm, may prove the best compromise available.

This argument is presented in four parts. Part II briefly describes the regime prior to the implementation of the Uruguay Round and Tokyo Round subsidies codes, FTA/NAFTA chapters 19, and patterns of national and subnational industrial policy. Part III examines how the Uruguay Round subsidies code will likely affect national, state and provincial practices. Part IV briefly describes the EU regime. With this as background, Part V suggests a way to fashion a supplemental U.S.-Canadian subsidies regime which is consistent with the draft Uruguay Round subsidies code and potentially could be incorporated into NAFTA to include Mexico.

II. THE PRE-URUGUAY ROUND SITUATION

Both the United States and Canada empowered administrative authorities to respond to private sector complaints of harm from subsidized imports. Prior to the Uruguay Round agreements, legislation in both countries was consistent with the requirements of the GATT and the Tokyo Round subsidies code implemented in 1980.[16] Together, national laws and GATT rules sewed together a so-called red, yellow and green regime.[17] The Tokyo Round code prohibited export subsidies by developed countries, with the exception of unprocessed farm, fish and forest products (red-light subsidies). Domestic production subsidies were permitted but actionable. While explicitly recognizing their utility as instruments of domestic economic development policy, the code permitted importing countries to impose countervailing duties if foreign-subsidized imports materially injured a domestic industry (yellow-light subsidies). U.S., Canadian and EU law defined generally available domestic subsidies--for example, a loan program available to all small businesses--as non-actionable (green-light subsidies), and U.S. trading partners wanted to see this concept incorporated into, and expanded in, the Uruguay Round subsidies code.[18]

During the 1980s industrial policies in both the United States and Canada experienced dramatic transformations for several reasons. As noted above, the more conservative tone of the Reagan/Bush and Mulroney governments resulted in greater reluctance by the two federal governments to assist mature industries and seek employers for depressed regions. Then a consensus emerged about

the need for greater federal involvement in pre-competitive research.[19] Thirdly, policymakers became increasingly aware that small- and medium-sized firms faced difficulties in commercializing technologies even when they already had the know-how in hand. This was viewed with some alarm because such firms are often the wellspring of many highly innovative products and new jobs. Finally, it became widely documented that the gap between North American and Japanese firms in the application of the latest manufacturing process technologies was most acute among second-tier firms. For instance, although companies like Chrysler and Ford had their problems, things were much worse among their suppliers.[20]

In the United States a partial, informal federal-state division of labor emerged. At the federal level a more focused, even if less well funded, array of programs grappled with the problem of supporting pre-competitive research and encouraging the kinds of industry cooperation that had proven so productive in Japan. The states were left to wrestle with the vexing problems of depressed communities and the shrinking base of manufacturing jobs paying high wages for fairly ordinary labor. Both levels of government sought ways to assist small- and medium-sized firms in commercializing new technology and learning new manufacturing methods.

Although President Reagan drastically cut funding for the Economic Development Administration, Small Business Administration and similar programs during his first term,[21] a number of efforts emerged during his second term that increased federal involvement in commercial technology and manufacturing extension services to small- and medium-sized firms. Specifically, in 1985 the federal government established 18 engineering research centers on university campuses to encourage scholars to focus more attention on commercial allocations. In 1986 the federal government took the lead in establishing the Sematech consortium developing advanced chipmaking technology, and it created a National Center for Manufacturing Sciences (NCMS)[22] which set up teaching factories in St. Louis, Toledo, and Huntington, West Virginia. In 1988 the National Institute for Standards and Technology (NIST), lodged within the Department of Commerce, inaugurated an advanced technology program to help finance pre-competitive research[23] and established five manufacturing technology centers[24] (MTCs) to provide extension services to small- and medium-sized firms.[25]

By the time President Bush took office an institutional infrastructure had been erected from which to launch activist support for pre-competitive research and technology transfers to small- and medium-sized firms. However, industrial policy turned out to be one of the few areas where the President Bush was more conservative than President Reagan. Although these programs sounded ambitious, the Bush Administration never adequately funded them.[26] For example, U.S. industry received little support, other than antitrust neutrality, in efforts to replicate Sematech in other areas;[27] attempts within the federal bureaucracy to capitalize on the storehouse of commercially exploitable knowledge in defense and energy laboratories remained unorganized; and while two more MTCs were established, adequate geographic coverage would have required many additional centers.

In contrast, the Clinton Administration initially moved forward with federal support for pre-competitive research, industry consortiums and technology transfer to small- and medium-sized businesses.[28] For instance it substantially increased funding and sought innovative and activist leadership for the advanced technology program. NCMS planned to substantially increase the number of teaching factories[29] and NIST sought to dramatically increase the network of MTCs.[30] Clinton achieved a new federal activism which had been quietly envisioned by Mr. Reagan and then shunned by Mr. Bush.

But after the election of a more conservative Republican Congress in 1994, most of Clinton's initiatives were downsized or shelved. The advanced technology program has been a special target of Congressional budget cutters,[31] and the rising contribution of U.S. exports to the recent economic recovery has quelled concerns about U.S. competitiveness.[32] Yet interest in industrial policy at the federal level has ebbed and flowed for several decades, and the continued efforts of state governments (described below) indicate that public support for industrial policy still remains substantial. The Reagan and Clinton frameworks provide an important indication of the likely characteristics of future federal initiatives when interest re-emerges in a federal industrial policy.

In Canada, Brian Mulroney reduced the subsidies offered by Ottawa's general economic development programs. It continued to provide some support for R&D and technology transfer but Canada's programs never matched the systematic focus that the Reagan and

Clinton administrations sought to shape. Were interest in industrial policy to re-emerge in Washington, the government of Prime Minister Jean Chretien would face substantial political pressure to respond in kind.

During the 1980s U.S. states and Canadian provinces sought to fill the void created by the contraction of general federal regional and industrial development programs with their own efforts to attract industry[33] and strengthen already established locally-based companies. The means included various tax incentives and holidays, grants, equity participation, loan programs, provision of utilities and other amenities at attractive prices, a variety of R&D aids and technical assistance, manpower training assistance, and efforts to make public education--in particular, vocational education--more responsive to the needs of employers. Canadian provinces already had established a rather extensive array of programs in the 1970s[34] which became more prominent with the contraction of general federal programs in the 1980s. These activities continued even in an era of severe fiscal constraints during the 1990s.

How much of this is has been good or bad? As a starting point, virtually all observers would agree that governments have some responsibility for job training and helping firms to overcome market failures. It is difficult to draw precise lines, for example, between appropriate public support for vocational education and training grants to enterprises that merely subsidize their operating costs. In the United States, community colleges and technical schools often have proven ill-equipped to prepare blue-collar workers for new manufacturing environments, and the work place is usually the best place to impart marketable skills to new hires and displaced workers. Similarly, market failures are frequently the root cause of out- of-date methods among small firms, and this is the basic justification for modeling manufacturing assistance after the successful agricultural extension services.

For our purposes state and provincial activities may be divided into two categories: programs that improve the quality of less mobile, local resources, and more targeted packages of benefits assembled to keep or attract mobile multinational corporate capital. Both macro-economic and industrial/regional policies can be applied to these purposes. In recent years, state industrial policies have increasingly focused on technology and training. For example, the Ohio Thomas Edison Program and the Pennsylvania Ben Franklin

Program bring together universities and private firms in commercial R&D projects. Both help entrepreneurial companies to commercialize technology. Also, the Pennsylvania program assists established manufacturers to adopt new technology through four regional advanced technology centers, and the state has established eight non-profit corporations providing similar services.[35] A 1991 congressional study found that 16 states offered in-plant extension services, and another seven had established walk-in programs.[36]

Many states have aggressive manpower training programs that help employers locate blue-collar workers with skills not generally found among new hires. For example, Illinois provided firms with assistance exceeding $25 million per year in 1991 through its industrial training program, and a program bearing the same name in Ohio spent about $6 million in 1990.

Extension services and manpower programs are frequently tailored to the needs of local industry. For example, the Wichita, Kansas and Sedgwick County Partnership for Growth was established to bring together government and private sector resources, and the Institute for Aviation and Composite Materials Laboratory at Wichita State University to help small suppliers of companies like Cessna, Beech Aircraft, Gates Learjet, Boeing and others to implement state of the art manufacturing systems;[37] the NIST manufacturing technology center in Cleveland established an outreach program at Youngstown State University with the assistance of state resources to focus on aluminum extrusion (and the tool and die makers that supply this industry) as a way to revive a metals-based local economy.[38] To attract three computer chipmaking factories to Virginia the state is contributing $10.5 million to worker training and has pledged $20 million for higher education to improve programs for engineers and technicians at state universities and community colleges.[39]

The central objective of these efforts is to help firms and workers improve their skills and compete; that is, to make the pie bigger instead of fighting over who gets the biggest slice. When not overdone, they are far removed from the direct competition for a new Ford or Mercedes-Benz plant. But in some instances states and provinces steer benefits from general programs to complement specially legislated tax breaks and benefits when they build packages to keep and attract plants. The Virginia commitments to education and training noted above fall into this category. Overall, the practice of combining special measures and steering benefits from generally

available programs has become a high stakes competition for factories and jobs.

Three sectors -- autos, aerospace, and computerchips -- illustrate the scope of state/provincial subsidies. In the automobile sweepstakes winning packages have included Honda at East Liberty and Marysville, Ohio, Nissan at Smyrna, Tennessee, Toyota at Georgetown, Kentucky, Diamond-Star at Normal and Bloomington, Illinois, Honda at Alliston and Ford at Windsor, Ontario and General Motors at St. Therese, Quebec. In 1992, for example, the South Carolina legislature approved an estimated $150 million in tax breaks and other benefits to attract a BMW plant, including a $1,500 per employee state income tax credit, concessions on water and sewage, funds to buy and prepare the plant site, and 55 free apartments in Greenville and Spartanburg.[40] A year later Alabama outbid South Carolina and North Carolina with an estimated $300 million package for a Mercedes-Benz plant which included state payment of the salaries of 1,500 workers during their first year or so on the job.[41] In the aerospace sector, Ontario took a 49 percent equity stake in de Havilland and teamed up with the federal government to offer a (Cdn) $490 million financial assistance package to rehabilitate the troubled aircraft company.[42] Virginia has attracted three major semi-conductor plants to locations near Richmond and in northern Virginia. In addition to the employment training commitments previously mentioned the state has offered grants and tax benefits that bring the total cost of these subsidies to $154 million.[43]

A 1996 KPMG Peat Marwick survey of 203 Fortune 1000 companies found that 70 percent (160) had received some kind of state or local incentive for locating facilities in a particular jurisdiction. Leading the list of perks were property tax rebates (51 percent), income and franchise tax rebates (48 percent), sales tax rebates (35 percent), job training (11 percent), employment or payroll tax credits (9 percent) and utility rebates (8 percent).[44] Absent a truce in this competition, state and provincial governments are under considerable pressure to participate. Apparently they perceive the net impact on tax revenues of individual incentive packages on jurisdictions winning or keeping employers to be positive and the net impact on the tax base of losing jurisdictions to be negative. The more successful states, such as South Carolina and Virginia, have increased their

employment and tax bases, while the less successful ones have suffered severe losses.[45]

The consequences of this competition for the distribution of the tax burdens among interest groups and for regional economic disparities are difficult to defend. State and provincial incentive packages probably have few consequences for the choice of firms to locate or stay in the United States and Canada; hence, they have little impact on the overall size of manufacturing tax base and employment within the free trade area. But these practices reallocate the tax burden from highly mobile corporate capital to less mobile local capital and labor and they tend to favor wealthy jurisdictions at the expense of poorer ones. Although these incentive packages benefit the workers directly employed by transplants and the communities in which they locate, the North American subsidies war has two perverse effects overall: it redistributes after-tax income to multinational corporations, often foreign, from less-mobile small businesses and workers, and it tends to exacerbate regional disparities in income and employment opportunities.

The Tokyo Round regime and national subsidy / countervailing duty laws hardly affected these practices for two sets of reasons. First of all, although state and provincial aids have significant impacts on the allocation of jobs among communities, they tend to cancel out on a national basis and probably have little effect on the division of manufacturing employment between the United States and Canada. In a specific industry, state and provincial programs may have some effects on the binational division of employment if the states, taken together, do a much more or less effective job than the provinces in courting a particular industry.[46] But identifying these situations is difficult, and gathering adequate information on the combined effects of various state and provincial programs to press a successful material injury case would pose obstacles. Secondly, many North American manufacturers lack a strong national identity. Small firms can move from Ontario to Tennessee with considerable ease, and large firms often have plants on both sides of the border. When a small employer is lured from Ontario to Tennessee, in part, by a lucrative package of benefits, a key player in a material injury case is the firm that has been lured. It is very difficult to prove material injury if a key injured party disappears altogether (leaves Canada), reappears in the United States as the beneficiary of the subsidy, and then denies that the subsidies had much to do with its decision to

leave Canada, because other considerations can always be cited. Among larger firms benefiting from these kinds of aids, many have plants, or at least suppliers, receiving subsidies in both countries; similarly, they compete with firms obtaining benefits in one or both countries. All the participants have little interest in bringing an end to state/provincial aids by claiming material injury in a subsidy/countervailing duty suit.[47]

Such situations are significantly different from those where a U.S., Canadian or binational industry is injured by subsidized imports from Europe, Asia or Latin America, and the subsidized imports are made by producers with a distinctly non-U.S./Canadian identity. Moreover, to the extent executives in an industry believe Japanese and European governments subsidize competitors in a substantial way, they may view an end to state/provincial aids as actually placing them at a unfair disadvantage in global trade.

In seeking a solution to the subsidies war, it should be recognized that many programs attract and keep manufacturing jobs by improving the quality of local resources, by introducing small firms to more modern methods and providing adult education where it may best be provided--at the workplace. These are areas in which Japan, Germany and other first-rate competitors spend more than North Americans do and do a better job.[48] The real problem is to bring an end to competitive bidding for new plant sites. The critical questions that emerge about the new Uruguay Round subsidies code and any future discipline that may emerge in a North American context are:

- Would the subsidies appreciably affect the unproductive competition among the states and provinces for new plant sites?

- In doing so, would they distinguish between programs that mostly improve the productivity of local resources and those that mostly lure employers from one location to another?

III. PROSPECTIVE CONSEQUENCES OF THE URUGUAY ROUND CODE FOR U.S. AND CANADIAN SUBSIDIES

The Uruguay Round code contains several important innovations. Among others, it introduces into the WTO a definition of

subsidies and in the process imports the U.S. concept of general availability to create an internationally recognized green-light category of government aid. Also, it offers U.S. and Canadian companies prospects for some relief when foreign subsidies adversely affect their competitiveness in the subsidizer's import market or a third-country markets. However, it could make more vulnerable some of the positive activities of the states and provinces.

A. Key Provisions

Essentially, the code defines a subsidy as an action by a national or sub-national government that bestows a financial benefit. This can include direct monetary benefits (e.g., grants, loans at below market cost and tax holidays), price supports or in-kind benefits (e.g., the provision of goods or services free or at below market prices). Such benefits are divided into two categories--specific and nonspecific (generally available). Subsidies are considered to be specific if benefits are limited to certain enterprises, either by eligibility requirements (*de facto* specificity) or in the way they are in fact administered (*de jure* specificity). Also, programs offering benefits only to enterprises within a geographic subdivision of the national or subnational government granting the benefit are considered *prima facia* specific, even if they offer benefits to all enterprises within the territorial subdivision.

Red-Light Subsidies. Both generally available and specific subsidies are prohibited if they offer benefits contingent on export performance or upon the use of domestic goods in place of imported ones. Members may invoke their national subsidy/countervailing duty laws or bring allegations of red-light subsidies before the WTO Dispute Settlement Body (DSB). If a panel established by the DSB determines that such subsidies are present, it will recommend withdrawing the offending measure.[49] If the offending party does not comply, the DSB will authorize countermeasures; the complainant does *not* have to establish injury to take such actions.

Green-Light Subsidies. Other generally available subsidies, such as investment tax credits or manpower training programs available to all enterprises, are granted circumscribed safe harbor. They are not subject to action by either the WTO or national subsidy/countervailing duty measures.

Red-Yellow Subsidies.[50] Other specific subsidies are actionable if they cause *adverse effects*. These include material injury to the

domestic industry of another country caused by subsidized import competition, or serious prejudice.[51] The code defines serious prejudice in detail--generally, it would be found to occur when a subsidy suppresses prices or reduces the exports of another country. An adversely affected country may petition the DSB to review its claim of material injury or serious prejudice. A panel will review the claim, and if material injury or serious prejudice are found, the offending party will be required to modify or remove the offending practice. If the offending member fails to act, the DSB will authorize responses similar to a countervailing duty. In the case of material injury, the adversely affected country may unilaterally apply its national subsidy/countervailing law.

Generally, subsidies that exceed five percent of sales (15 percent for start-up enterprises), cover operating losses, or forgive debt are presumed to cause serious prejudice; in these situations, the burden falls on the subsidizing government to prove the absence of price suppression or detrimental trade effects. For subsidies exceeding these thresholds, the code provides some exceptions, most notably for natural disasters, strikes, and transport disruptions, aid to cover the operating losses of an enterprise on a one-time, nonrecurring basis and "given merely to provide time for the development of long-term solutions and avoid acute social problems,"[52] and when the complainant negotiates voluntary restraint agreements or invokes other mechanisms for managing trade.

These provisions regarding serious prejudice should give member countries some redress when damages are imposed on their industries by lost exports to the subsidizing country or third-country markets. This is an important improvement, because the prior GATT regime recognized serious prejudice caused by the loss of sales outside the complainant's home market, but it was very difficult to establish.[53]

Green-Yellow Subsidies. The Code provides *circumscribed* safe harbor for three categories of specific subsidies:

- aid to distressed regions that is "given pursuant to a general framework of regional development and nonspecific";[54] the criteria for establishing distressed regions must require per capita GDP or personal income to be no higher than 85 percent of the national average, or require unemployment to be at least 110 percent of the national average.

- contributions to R&D projects that do not exceed 75 percent of the cost of industrial research[55] and 50 percent of the cost of pre-competitive development activity.[56]

- assistance for retrofitting existing facilities to meet new environmental standards, provided such aid is one-time and nonrecurring, limited to 20 percent of the cost of adaptation, does not cover the cost of replacing or operating the assisted investment, and is available to all firms adopting the new process.

Subsidies meeting one of these criteria are only actionable if another member can prove it resulted in "*serious* adverse effects to the domestic industry of that Member, such as to cause damage which would be difficult to repair...."[57] Importantly, the complainant may not apply countervailing duties unilaterally by resorting to its national subsidy/countervailing duty laws;[58] rather, it must demonstrate such serious adverse effects to the WTO Subsidies Committee.[59]

B. Notification and Surveillance

Each year members are required to notify the WTO subsidies committee of programs they believe qualify for safe harbor under the R&D, regional development and environmental provisions. To ensure safe harbor, new programs should be notified in advance of implementation. Also, each year members are required to notify all specific subsidies within their jurisdictions. Required information would include the purpose of the subsidy, its form (e.g., grant, tax concession), the subsidy per unit or, if not possible, amount budgeted, duration, and statistical data permitting assessment of its trade effects.

C. Implications for Federal, State and Provincial Programs

The code could have some effect on U.S. and Canadian behavior at both the federal and state/provincial levels. On the federal level, it would appear bailouts of bankrupt or troubled enterprises, such as U.S. assistance to Lockheed, Canadian assistance to de Havilland and U.S./Canadian assistance to Chrysler, could have run afoul of the code's serious prejudice provisions regarding operating losses.[60] Similarly, duty remission benefits offered by Canada to offshore automobile and sugar producers would likely be ruled out of bounds.[61]

Provincial initiatives targeted, *de facto* or *de jure*, at specific industries like Canadian support for the Michelin tire factory in Nova Scotia or for restructuring the Atlantic fish processing industry would not meet the general availability criteria. Such initiatives would remain actionable; they could attract attention, as before, from national subsidy / countervailing duty apparatus, and now, from the WTO subsidies committee if they caused serious prejudice.

Many of the industrial policies advocated by President Clinton should be little affected by the code. Support for pre-competitive research and to assist industry consortiums in areas such as environmental technology, new construction technologies, intelligent control and sensor technology, and rapid prototyping and agile manufacturing[62] could easily be structured to fall under the safe harbor provisions for industrial and pre-competitive research. But some manufacturing extension services could become the focus of attention. For example, the emphasis of the NIST Youngstown outreach center on aluminum extrusion is credited with helping make that city the aluminum extrusion capital of the nation.[63] Similarly, the NCMS teaching factories have specific industry foci: Huntington, West Virginia - small machine shops and mining equipment; St. Louis - suppliers to large aircraft and automobile manufacturers; and Toledo - the tool and die industry.[64] But the subsidy content of outreach services to any one industry is probably not large; in any case, program budgeting for the national and systems of centers probably could be structured to make them generally available.

Contributions to rescue packages such as in the case of the Chrysler bailout and the recapitalization of de Havilland would be endangered by the code's provisions connecting subsidies to cover operating losses and debt repayment to a presumption of serious prejudice. An interesting question also emerges about the sale of electricity at below commercial value by Quebec Hydro to the aluminum industry during recessions when firms sustain operating losses.

Many state R&D programs emphasize collaboration with local universities. States could channel aid through them, and even if these gave aid directly to firms, most state aid could probably be structured to qualify under the industrial and pre-competitive research provisions. But benefits that emphasize direct links between state-supported R&D, on the one hand, and specific product devel-

opment and the numbers of jobs created, on the other, may become more vulnerable.

Regarding manufacturing extension services and manpower training programs, the states and provinces could argue that such programs, when not part of a specially tailored package to attract or keep a major employer, are generally available. When benefits are concentrated toward a specific industry or employer, they could counter charges of *de jure* specificity by arguing that these benefits have little impact on trade or market prices owing, in particular, to the small size of their subsidy element. Real problems could emerge when extension services and training benefits are bundled with tax abatements and other financial incentives as part of a comprehensive package to attract a large plant to a locality. For example, to establish serious prejudice in the WTO, a complainant could add the values of extension services to small suppliers of a newly attracted major plant and the value of new-employee training programs dedicated to the new plant to the value of tax abatements, utility rebates, and submarket financing.

Overall, though, since competitors in Japan and Europe offer many of these kinds of assistance to industry and workers, it is unlikely to become an international issue. But in a bilateral U.S.-Canadian context, these programs could become subject to challenge. For example, a narrowly defined Canadian industry could feel victimized by a greater level of technical support offered by several states and ask Ottawa to pursue a serious prejudice investigation. But Ottawa and Washington would have to weigh the likelihood of a boomerang on other provinces and states and the political consequences of challenging state and provincial prerogatives in economic development. One case could open a Pandora's box.

What the code should ideally discipline are the packages of benefits assembled to assist or attract large employers and tax holidays and sundry benefits enacted by South Carolina for BMW and other enterprises. Although the code's serious prejudice provisions make these more vulnerable than before, it is unlikely that state and provincial assistance will often exceed the five percent of sales ceiling (15 percent for start up enterprises) that establishes presumption of serious prejudice.

As important, beyond stepped up surveillance the code continues the GATT practice of relying on complaints, as opposed to prior

review of new programs and benefits, to identify offending practices. It does little to change the structure of incentives for firms in binationally organized industries to file complaints. As such, it is not likely to appreciably increase the number of locational subsidies that become the focus of investigation either by national authorities administering subsidy/countervailing duty laws or by the WTO.

In situations where U.S. and Canadian businesses are inclined to bring complaints, savvy firms may still be able to extract generous concessions from jurisdictions by focusing their attention on the benefits that may be offered by either the states or the provinces. For example, once a European automotive manufacturer has decided to locate a plant in North America, it need only make a preliminary decision to locate in one country or the other and then let the subnational governments within one of the two countries bid away. It could even decide to place an assembly facility in one country and parts factory in the other and play this game effectively. No jurisdiction in either country could effectively ask its national government to bring a case on the basis of serious prejudice.

Another interesting issue is how Washington and Ottawa will annually report to the WTO all of the programs offered by the states and provinces in the kind of detail envisioned by the code. In their first notifications, Canada and the United States did not identify state and provincial activities while Germany did cite some *Laender* activities, but reporting was not consistent across EU countries. The subnational notification issue is now under discussion.

The code clearly states that "Members shall notify any specific subsidy....which is granted or maintained within their territories."[65] The use of the words "within their jurisdictions," as opposed to, for example, "by their departments and agents" would seem to imply that members are required to report specific subsidies granted by national government departments (e.g., the U.S. Department of Commerce), national government agents (e.g., the U.S. Export-Import Bank and the Tennessee Valley Authority), subnational sovereignties (e.g., State of Virginia), and their agents (e.g., the City of Manassas and public utilities). However, cataloguing all the benefits that are offered would require enormous effort and cooperation between Washington, Ottawa and their respective state/provincial governments. At this stage the process of notification and review is still too early to predict its overall effectiveness. Even if the states and provinces were to cheerfully comply, they would have considerable

latitude in drawing lines between state-funded university research and product development aid to private businesses or between vocational education and manpower training programs that bestow benefits on specific firms.

Returning to the two questions posed at the end of the previous section, I believe that, first, the Uruguay Round code will not appreciably affect the unproductive competition among the states and provinces for plants. Secondly, the code may affect some programs, such as manufacturing extension services and manpower training programs, aimed primarily at improving the competitiveness of local resources; however, most programs can be structured to meet the general availability test or be defended from charges of *de jure specificity* by their small dollar value. When these kinds of benefits are bundled with others to attract or keep plants, they become more vulnerable.

IV. THE APPLICABILITY OF EU REGIME

The regulation of subsidies by member states, and their subnational governments and agents, is one of several areas where the Treaty of Rome affords the EU Commission wide-ranging authority.[66]

The EU Discipline. Essentially, Article 92 of the Treaty states that aid in any form that "distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the Common Market." Article 92 goes on to make exceptions for aid having a social purpose, damage caused by national disasters and exceptional occurrences, and aid to support important projects of common European interest, develop depressed regions, and remedy a serious disturbance in the economy of a member state.

Member states are obliged to report in some detail to the commission all changes in existing and new aid programs, general and specific, but this requirement is not fully honored as evidenced by aids uncovered and then disallowed by the commission.[67] For general programs member states must report on individual grants exceeding certain thresholds which are defined by a combination of the absolute size of the grant and its contribution to total capital costs of the project.[68]

Existing programs may not be altered and new programs may not be implemented without *prior* commission approval. When

programs are not reported and are uncovered (for example, as a result of a complaint by a member government) and determined to distort intra-EU trade, the commission may compel recipients to repay the aid. Commission decisions are subject to challenge at the European Court of Justice, but the basis for appeal must be procedural as the Court has been reluctant to review the commission's substantive conclusions.

Unlike the Uruguay Round code, Article 92 does not define actionable subsidies: that is, it does not spell out what constitutes aid and what favors the production of certain goods (what is "specific" in the language of the Uruguay code). The EU commission has evolved over time a body of rules and precedents. In doing so, it has cast a broad net. Applying the "commercial investor principle," grants and tax concessions, as well as state equity participation, loans, loan guarantees, and the sale of property at less than market terms are all subsidies. For example, the sale of land at less that commercial value was deemed a subsidy when Toyota purchased a site from the Derbyshire County Council in the United Kingdom and when Daimler-Benz purchased a site from the regional government of Berlin. Indicative of how far the commission will reach to find a specific subsidy, Italian social security concessions favoring female employees were found to subsidize the production of industries with large concentrations of female workers--notably, textiles, clothing, footwear, and leather goods.

In interpreting exemptions provided by Article 92, the commission has permitted assistance for R&D, and it defines distressed regions in ways that are similar to the Uruguay Round code.[69] The system has tolerated manpower training programs that pay firms directly, and of course, subsidies that primarily bolster EU competitiveness vis-à-vis the rest of the world. In this regard subsidies to Airbus have been a notable irritation to the Americans. In evaluating aids to specific sectors or their enterprises, the commission is strict about programs that would add capacity in industries with significant excess such as textiles, synthetic fibers, steel products, and automobiles. All of this notwithstanding, subsidization continues at a fairly robust level,[70] but the fact that EU national governments subsidize more than the U.S. and Canadian federal governments does not reflect apathy or impotency; rather, it probably emanates from a more corporatist economic development culture. Review by the commission forces member states to justify their actions and limit

effects on EU resource allocation and intra-Community trade. It seems to tolerate fairly well benefits that improve the quality of resources, while focusing greatest attention on practices that would be clearly regarded as locational incentives in the North American context and affecting the distribution of jobs in contracting or mature industries within the EU.

If the experiences of the automobile industry are any indication, the EU regime imposes more discipline on competition for plants and jobs among EU member states than the Tokyo Round and new Uruguay Round regimes on competition among the states and provinces.[71]

V. WHAT TO DO ABOUT SUBSIDIES IN THE U.S.-CANADIAN CONTEXT

The EU regime would be an attractive mechanism for resolving the North American subsidies war if it were not for U.S. and Canadian ambivalence about empowering supranational bodies with sovereign prerogatives. In seeking to create a U.S.-Canadian regime that achieves the benefits of the EU system while minimizing the intrusions into sovereignty, it is important to focus on two important issues: prior review and the identification of specific subsidies.

A. Virtues of the European System

Prior Review. By depending on prior review of programs and repayment of uncovered violations instead of the complaints by victims, the EU system shifts some of the burden of proof to the subsidizing government that is borne by the victim in the WTO system. When faithfully applied, prior review requires the subsidizing government to explain why the proposed program will not affect trade rather than on a victim to prove harm--i.e., material injury or serious prejudice.

As importantly, though, prior review has the potential to constrain subsidies in situations like automobiles where virtually all or much of an industry is receiving benefits from some jurisdiction, and enterprises are engaging subnational jurisdictions in bidding contests. In these situations, although resource allocation and trade are distorted, there are few if any victims within the subsidized industry to bring a countervailing duty suit or force a WTO complaint; the real victims are other industries and taxpayers who must compete for scarce resources and pay higher taxes. Although the EU Commission

has not always been rigorous in the pursuit of its responsibility to undertake prior review, it has taken a tougher stand in industries with substantial excess capacity.

Identification of Specific Subsidies. The EU regime and Uruguay Round code demarcate specific and generally available subsidies in significantly different ways. The code impels competent national authorities and the WTO DSB and subsidies committee to consider the stated intent and published eligibility requirements of programs, and how faithfully benefits were made available to most enterprises as opposed to creating a veiled sectoral program (*de jure* specificity).

In contrast, the Treaty of Rome asks: does the aid distort or threaten to distort competition by favoring certain undertakings or the production of certain goods so as to affect intra-EU trade? From the perspective of good economics, this is the more fundamental, relevant and compelling question. By focusing on the impact, the EU regime leaves to the commission the role of making sensible judgements about whether programs do more to improve the overall competitiveness of the resource base or to affect resource allocation and distort intra-Community trade. The commission must judge, based on anticipated and actual effects, whether modifications in macroeconomic and general industrial policies are benign or manipulations to provide targeted benefits--e.g., the Italian social security case.

Virtually all fiscal instruments of government favor some activities over others, and in some cases generally available subsidies can be more distortive than specific ones. For example, a decision to sell important natural resources, such as electricity, natural gas or lumber, at less-than-market prices to all comers can considerably distort the location of large industries such as aluminum, basic petrochemicals and various wood products. Or, offering overly generous unemployment benefits in states or provinces dependent on labor-intensive, seasonal industries can prop up mature industries by implicitly subsidizing labor costs such as apparel in New York or fish processing in Newfoundland. By plainly defining offensive subsidies in terms of their effects and then leaving to the commission the task of calling them when they see them, the EU regime avoids the inconsistencies that arise by trying to reduce the process to a detailed set of rules. Also, defining appropriate exceptions for R&D, regional development and pollution abatement ret-

rofitting requires similar judgements about reasonable and appropriate measures. These are not easily reduced to statute.

In the end, any effort to supplement the Uruguay Round code in the U.S.-Canadian context should consider prior review and empowering a competent body to apply simple general standards.

B. A Proposal

The United States and Canada should negotiate a supplemental agreement to NAFTA that limits the use of locational subsidies and affords safe harbor to programs that primarily improve quality of human and technological resources.

For purposes of a binational application of the Uruguay Round code, locational incentives above a low *de minimis* threshold should be placed in the red/yellow zone and be presumed to cause serious prejudice. Manpower training, extension services, and other aids that mostly improve the quality of local resources, when not bundled with other benefits to rescue an ailing enterprise or keep a plant from moving or attract a new one, should be placed in the green zone.

A U.S.-Canada subsidies committee, supported by a secretariat domiciled outside the two federal bureaucracies, should be established to monitor and review new and existing programs. Washington and Ottawa would report information gathered from the states and provinces on these programs, including aids and bundles of aids from general programs to enterprises above thresholds like those applied by the EU commission. The information Washington and Ottawa would report to the U.S.-Canada committee would be similar in the scope and format as required by the Uruguay Round code. The committee could request supplemental information from the states and provinces.

On the basis of this information the U.S.-Canada committee would identify programs and large aids from general programs that are locational incentives or mostly improve the quality of local resources. It need not classify all programs and aids and place all of them in the red, green, green-yellow, or green-red zones. For unclassified aids the two national governments would still have recourse to the WTO regime and national subsidy/countervailing duty laws. Also, the committee should be empowered to review uncovered aids based on complaints by either the federal or state/provincial governments.

Ideally, the committee would be empowered to undertake prior review and could compel states and provinces to withdraw, amend or repay locational incentives presumed to cause serious prejudice, but this would likely prove too intrusive for federal, state and provincial governments to accept. Instead, it could offer the states and provinces opportunities to discuss suitable amendments and repayment. If satisfactory action was not forthcoming, then the committee could authorize the national government of the non-subsidizing country to impose a border measure, similar to a countervailing duty, without an injury test. However, the duty could be calculated to take into account the effects of the subsidy on imports by the non-subsidizing country and on import substitution in the subsidizing country and third-country markets.[72]

The committee would be a permanent investigative body of experts appointed by the president and prime minister with four to eight members serving staggered terms of four to eight years. A longer term with no opportunity for renewal would best ensure the impartiality of panel judgements. The committee's findings could be appealed through two channels: (1) procedural questions could be brought before binational boards like the Chapter 19 panels and (2) substantive findings could be appealed to the FTA commission, which is composed of the two trade ministers, where unanimity would be required to overturn committee rulings.[73]

Why limit review of substantive findings to the FTA commission? Many issues that come up applying general standards (such as those embodied in Article 92 or in the supplemental agreement envisioned here) demand more than economic judgements; they require competent authorities to balance competing economic and social goals. The FTA commission, composed of ministers of sitting governments, is a political body, and if national sovereignty is to be respected, then the power to modify or reverse the substantive findings of the committee should be left to such a political body. Also, given the sensibilities and sensitivities of the states and provinces and the diversity of views and circumstances among them, it would be useful to include in the negotiation of the supplemental subsidies agreement representatives from the U.S. National Governors Association and the Canadian provincial premiers. They might be afforded observer status. Finally, this supplemental agreement could either stand alone as a separate U.S.-Canadian undertaking, or it could be expanded to include Mexico and become an addition to

NAFTA. Transitional provisions for developing countries are included in the Uruguay Round subsidies code. Regarding locational subsidies, though, it seems less appropriate to give Mexico special treatment, especially considering the unique access it enjoys to the U.S. and Canadian market among developing countries. But this issue requires further study.

ACRONYMS

BMW	Bavarian Motor Works
DSB	dispute settlement body
ECU	European currency unit
EU	European Union
FTA	Canada-U.S. Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
MTCs	manufacturing technology centers
NAFTA	North American Free Trade Agreement
NCMS	National Center for Manufacturing Sciences
NIST	National Institute for Standards and Technology
R&D	research and development
WTO	World Trade Organization

NOTES

[1] For detailed discussions of the growth of federal and selected provincial programs through the early 1980s see Peter Morici, Arthur J.R. Smith and Sperry Lea, *Canadian Industrial Policy* (Washington, DC: National Planning Association, 1982).

[2] The United States suspended the application of countervailing duties during the Tokyo Round (1973-1979), which included the negotiation of a multilateral subsidies code (discussed below).

[3] Peter Morici, *A New Special Relationship: Free Trade and U.S.-Canada Economic Relations in the 1990s* (Halifax, NS: Institute for Research on Public Policy, 1991), 44-46.

[4] Gary Hufbauer and Joanna Shelton Erb, *Subsidies in International Trade* (Washington, DC: Institute for International Economics, 1984), 91 and 103.

[5] See Peter Morici and Laura Megna, *U.S. Economic Policies Affecting Industrial Trade* (Washington, DC: National Planning Association, 1983), 54-75, and *The Global Competitive Struggle* (Washington, DC: National Planning Association, 1984), 39-43.

[6] For example, the Tennessee Valley Authority initiated during the Depression and Johnson Administration Great Society programs for Appalachia.

[7] For example, see Alan M. Rugman and Andrew D.M. Anderson, *Administered Protection in America* (London: Crom Helm, 1987).

[8] For a discussion of activities in Ontario, Quebec and Alberta see Peter Morici, Arthur J.R. Smith and Sperry Lea, *Canadian Industrial Policy*, chapter 6.

[9] Analyses of these trends are offered in Peter K. Eisinger, *The Rise of the Entrepreneurial States* (Madison, WI: The University of Wisconsin Press, 1988); R. Scott Fosler, ed. *The New Economic Role of American States* (New York: Oxford University Press, 1988); Earl H. Fry, "State and Local Governments in the International Arena," *Annals of the American Academy of Political Science* (May 1990): 118-127; Jeffrey S. Luke, *et al., Managing Economic Development: A Guide to State and Local*

Leadership Strategies (San Francisco: Jossey-Bass, 1988); and DeWitt John, *Shifting Responsibilities: Federalism in Economic Development* (Washington, DC: National Association of Governors, 1987).

[10] This may be done by legislating special measures for individual recipients, steering benefits from existing general programs, or both.

[11] This constraint was operative in the minds of U.S. negotiators at the staff level. However, it should be noted that U.S. politicians frequently expressed the view that Canada subsidized more--this should have ameliorated somewhat the force of the five-to-one problem. Many scholars and practitioners would not agree that Canada subsidizes more than the U.S.

[12] The notion of national government supremacy in defining regional development and industrial policy has never been fully accepted, in a political sense, in either federation, and this was underscored by the assertiveness of provincial and state governments during the Reagan/Bush/Clinton and Trudeau/Mulroney years.

[13] NAFTA did refine the process a bit and included some additional procedural safeguards to further ensure the integrity of the binational review process.

[14] An updated GATT agreement ("GATT 1994"), along with the new General Agreement on Trade in Services, are among the Uruguay Round Agreements that established the WTO.

[15] The formal name is the "Agreement on Subsidies and Countervailing Measures."

[16] The official title is the Agreement on Interpretation and Application of Articles VI, XVI and XXIII.

[17] Red, yellow and green are colloquial terms and not formal GATT language.

[18] For a more detailed treatments of the Tokyo Round code see Gary Hufbauer, *GATT Discipline on Domestic Subsidies and Implications for State and Provincial Governments* (Halifax, NS: U.S. Policy Studies Group, Dalhousie University, 1993); and Gary Hufbauer and Joanna Shelton Erb, *Subsidies in International Trade.*

[19] *Pre-competitive research* bridges the gap between basic *research* (the pursuit of new knowledge) and product *development* (the application of specific technologies to create or improve a product). Pre-competitive research encompasses the creation and refinement of technologies one or more steps away from product application--for example, work on new material for computer chips or on methods to fit more circuits on a silicon wafer. It may include concept products and first prototypes that are not suitable for commercial use.

Often these projects generate benefits for a wide range of disconnected industries--e.g., a successful semi-conductor project can improve products ranging from automobiles to video cassette recorders; they have become much more costly over the last two decades--e.g., a semi-conductor project which cost $10 million twenty years ago might cost 10 or 20 times that much today. Therefore, pre-competitive research generates many benefits that are not capable of appropriation by an individual firm paying for a project, and project costs are often too high to justify by the benefits appropriated by the paying firm.

Even if adequate benefits can be appropriated by the paying firm, high costs can overwhelm the risk pooling capabilities of all but the largest firms. During the 1980s government cofinancing and efforts to encourage multi-industry consortiums became increasingly viewed within the U.S. bureaucracy as a legitimate function of government--akin to spending on infrastructure. See Office of Technology Assessment, *Competing Economies: America, Europe and the Pacific Rim* (Washington, DC: U.S. Government Printing Office, 1991), and National Academy of Sciences, *The Government Role in Civilian Technology: Building a New Alliance* (Washington, DC: National Academy Press, 1992).

[20] Economic Council of Canada, *Innovation and Jobs in Canada* (Ottawa: Supply and Services Canada, 1987), 75; Maryellen F. Kelley and Harvey Brooks, *The State of Computerized Automation in U.S. Manufacturing* (Cambridge, Mass.: Center for Business and Government, 1988), 3; and Peter Morici, *A New Special Relationship*, 96-97.

[21] See Peter Morici and Laura Megna, *U.S. Economic Policies Affecting Industrial Trade*, 63.

[22] Peter Morici, *A New Special Relationship*, 100-101.

[23] The first awards were announced in 1991.

[24] MTCs were established in Albany, New York; Columbia, South Carolina; Cleveland, Ohio; Ann Arbor, Michigan; Overland Park, Kansas; Torrance, California; and Minneapolis, Minnesota.

[25] See Office of Technology Assessment, *Competing Economies: America, Europe, and the Pacific Rim* (Washington, DC: Government Printing Office, 1991), 18 and 66-67; and John Holusha, "Technology Outreach in Ohio: An Education Model for Federal Program," *The New York Times* June 24, 1993, D1 and D21.

[26] Peter Morici, *A New Special Relationship*, 101-102.

[27] A notable exception was Department of Energy support for the consortium of Chrysler, General Motors, Ford, and major electronics companies to develop new battery technologies; however, this was undertaken more as part of the new national energy strategy than out of a recognition of a need for an activist federal industrial policy. For example, Washington stood idle as IBM failed in its effort to organize a manufacturing analog to Sematech for the production of dynamic random access memory (DRAMs) chips, and Motorola sought partners to develop the infrastructure for a global analog to local cellular phone service.

[28] In particular see, President William J. Clinton and Vice President Albert Gore, Jr., *Technology for America's Economic Growth: A New Direction to Build Economic Strength* (Washington, DC: The White House, February 22, 1993).

[29] John Holusha, "Giving Smaller Factories Bigger Ideas," *The New York Times*, March 11, 1993, D1 and D9.

[30] John Holusha, "Technology Outreach in Ohio," *The New York Times*, January 24, 1993 D1 and D21.

[31] "The Federal Budget: Winners and Losers," *The Washington Post*, April 29, 1996, A15.

[32] Peter Morici, "Export Our Way to Prosperity," *Foreign Policy* (Winter 1995-96): 3-17.

[33] For a flavor of this competition, see Earl H. Fry, "Canada-U.S. Economic Relations: The Role of the Provinces and the States," *Business in the Contemporary World* (Autumn, 1990): 120-126.

[34] See Peter Morici, Arthur J.R. Smith and Sperry Lea, *Canadian Industrial Policy,* chapter 6.

[35] John Holusha, "Traveling High-Tech Agents Help Update Small Factories," *The New York Times,* February 16, 1993.

[36] See Office of Technology Assessment, *Competing Economies: America, Europe, and the Pacific Rim,* 47-48.

[37] Joel Dreyfuss, "Shaping Up Your Suppliers," *Fortune* (April 10, 1989): 116-122.

[38] John Holusha, "Technology Outreach in Ohio," D1 and D21.

[39] Elizabeth Corcoran, "A Silicon State," *The Washington Post,* June 16, 1996, H1 and H5.

[40] See Ferdinand Protzman, "South Carolina Plant is Planned for BMW," *The New York Times,* June 23, 1992, D1 and D6; and "Winning the Game of Global Smokestack Chasing," *The New York Times,* June 23, 1992, D6.

[41] E.S. Browning and Helene Cooper, "States' Bidding War Over Mercedes Plant Made for Chase," *The Wall Street Journal,* November 24, 1993, A1 and A6.

[42] "Bombardier, Ontario Buy de Havilland," *Facts on File,* January 30, 1992, 62, and James T. McKenna, "Bombardier Buys De Havilland in Move to Expand Market Share," *Aviation Week & Space Technology,* January 27, 1992: 32.

[43] Elizabeth Corcoran, *"A Silicon State,"* The Washington Post, June 16, 1996, H1, H5.

[44] Michael J. Phillips, "Localities Force Firms to Keep Promises," *The Wall Street Journal,* June 26, 1996, A2 and A11.

[45] Although, locational subsidies may not very much increase the number of manufacturing jobs in the United States and Canada

combined, they importantly affect the distribution of plants. A study by economists at the San Francisco Federal Reserve Bank and the University of Colorado found that states spending more on economic development grow more rapidly. See "Frederick Rose, Growth Tied to State Incentive Programs," *The Wall Street Journal*, April 8, 1996, A2 and A8.

[46] The differences would have to be significant, because many large employers like to allocate employment between the two countries to ensure amicable relations with present and future national governments.

[47] In this context, it is interesting to note that Chapter 19 subsidy disputes have often focused on resource and resource-processing industries, having origins in resource pricing and agriculture support programs. Although the orientation of Canadian industry toward resource-based industry has something to do with this, it is also true that Canada has quite substantial exports of secondary manufacturers (e.g., automobiles, other transportation equipment, machinery, electrical equipment, furniture, and chemical products), and the binational structure of ownership and supplier networks also has something to do with the virtual absence of major countervailing duty suits in manufacturing.

The major exception is steel, which has been involved in several binational subsidies disputes and where three unusual characteristics come into play. First, the two national steel industries are almost wholly separately owned, so one set of firms generally benefits only from subsidies in the United States while another set of firms generally benefits only from subsidies in Canada. Second, the industry suffers from chronic global excess capacity that creates a crisis during every economic slowdown. Third, the industry has a tradition of seeking protection and resorting to subsidy/countervailing and anti-dumping laws when the market softens, and when they do, Canadian mills (U.S. mills) are as foreign to U.S. mills (Canadian mills) as European, Asian or Latin American mills.

[48] Regarding extension services and Japan see Office of Technology Assessment, *Competing Economies: America, Europe, and the Pacific Rim*, 17- 18 and 45-48.

[49] Panel findings may be appealed to the WTO Appellate Body. If panel findings are upheld, then the panel report is implemented.

[50] The terms Red-Yellow and Green-Yellow used below are adapted from Gary Hufbauer, *GATT Discipline on Domestic Subsidies*.

[51] Adverse effects also include nullification and impairment of the benefits accruing directly or indirectly to Members under GATT 1994.

[52] Agreement on Subsidies and Countervailing Measures, Article 6.1(c).

[53] Gary Hufbauer, *GATT Discipline on Domestic Subsidies*, 5.

[54] Agreement on Subsidies and Countervailing Measures, Article 8.2(b).

[55] The subsidies code employs the term "industrial research" to include what is commonly called basic research, and it uses the term "pre-competitive development activity" to include what is commonly called pre-competitive research. See note 19.

[56] This provision does not apply to the civil aircraft industry.

[57] Agreement on Subsidies and Countervailing Measures, Article 9.1-- emphasis added.

[58] However, signatories may invoke their domestic laws to investigate regional aids to determine whether they are indeed nonspecific.

[59] The formal name is the Committee on Subsidies and Countervailing Measures.

[60] Of course, direct transfers to meet payrolls generally have not been the style in North America, and it remains to be seen how the committee would evaluate loans, loan guarantees and equity transfusions and the like. The motivation for intervention will considerably influence how particular actions are interpreted.

[61] As required by the FTA and NAFTA, Canada is phasing these out.

[62] William J. Clinton and Albert Gore, Jr., *Technology for America's Economic Growth*, 8-10.

[63] John Holusha, "Technology Outreach in Ohio," D21.

[64] John Holusha, "Giving Smaller Factories Big Ideas," p. D1.

[65] Agreement on Subsidies and Countervailing Measures, Article 25.2.

[66] The description of the EC subsidies discipline is based on Fiona G. Wishlade, "Monitoring and Controlling State Adds: A European Community Perspective," Presented at the Dalhousie University Symposium: The Uruguay Round and Beyond - Charting a Course on Subsidies, August 16-17, 1993.

[67] Examples include the sales of land at less than commercial value to Toyota and Daimler Benz noted below.

[68] Aids must be reported when they exceed 15 percent of investment cost, or 10 percent and ECU 3 million, or five percent and ECU 54 million, or ECU nine million.

[69] Regarding regional aid, areas as large as some of the poorer EC countries (e.g., Spain and Portugal) qualify, as do areas the size of English counties in the wealthier countries.

[70] The European Policies Research Centre at the University of Strathclyde identified 700 individual aid programs administered by EU national governments that spent about one percent of EU GDP in the late 1980s.

[71] The EC has disallowed several uncovered aids in this sector--the land purchases by Toyota and Daimler-Benz noted above and Belgian aid for a new Ford / Volkswagen plant. I am not aware of a single subsidy to a North American automobile producer that has been countervailed since the Automotive Agreement of 1965; however, the threat of countervailing duties on Canadian duty remission program for parts exports, which were clearly a locational incentive, did precipitate the negotiation of the Automotive Agreement of 1965: see Peter Morici, Arthur J.R. Smith and Sperry Lea, *Canadian Industrial Policy,* Appendix 1.

[72] As Horlick and Steger pointed out in a similar proposal, Canada would be unlikely to accept a system of countervailing duties in

which the United States could countervail the four-fifths of its exports destined for the United States, while Canada could only countervail the one-fifth of U.S. exports going the other way. See Gary N. Horlick and Debra P. Steger, "Subsidies and Countervailing Duties," in Peter Morici (ed.) *Making Free Trade Work: The Canada-U.S. Agreement* (New York: Council on Foreign Relations, 1990), 93 and note 20, 101.

[73] Most provisions of the FTA were suspended with the implementation of NAFTA. Meetings of the FTA commission have been replaced by meetings of the NAFTA commission. For the purposes of implementing a new subsidies agreement, meetings of the FTA commission could be resumed.

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