AREA REPORT

The Canadian mineral industry: market access and the subsidy debate

By David L Anderson

**Canadian mineral producers are highly dependent on access to the US market.
David L Anderson analyzes how US accusations of subsidization practices in Canada and a growing US protectionism affects Canadian companies and bilaterial relations.
He also suggests a pragmatic method for examining the subsidy question.**

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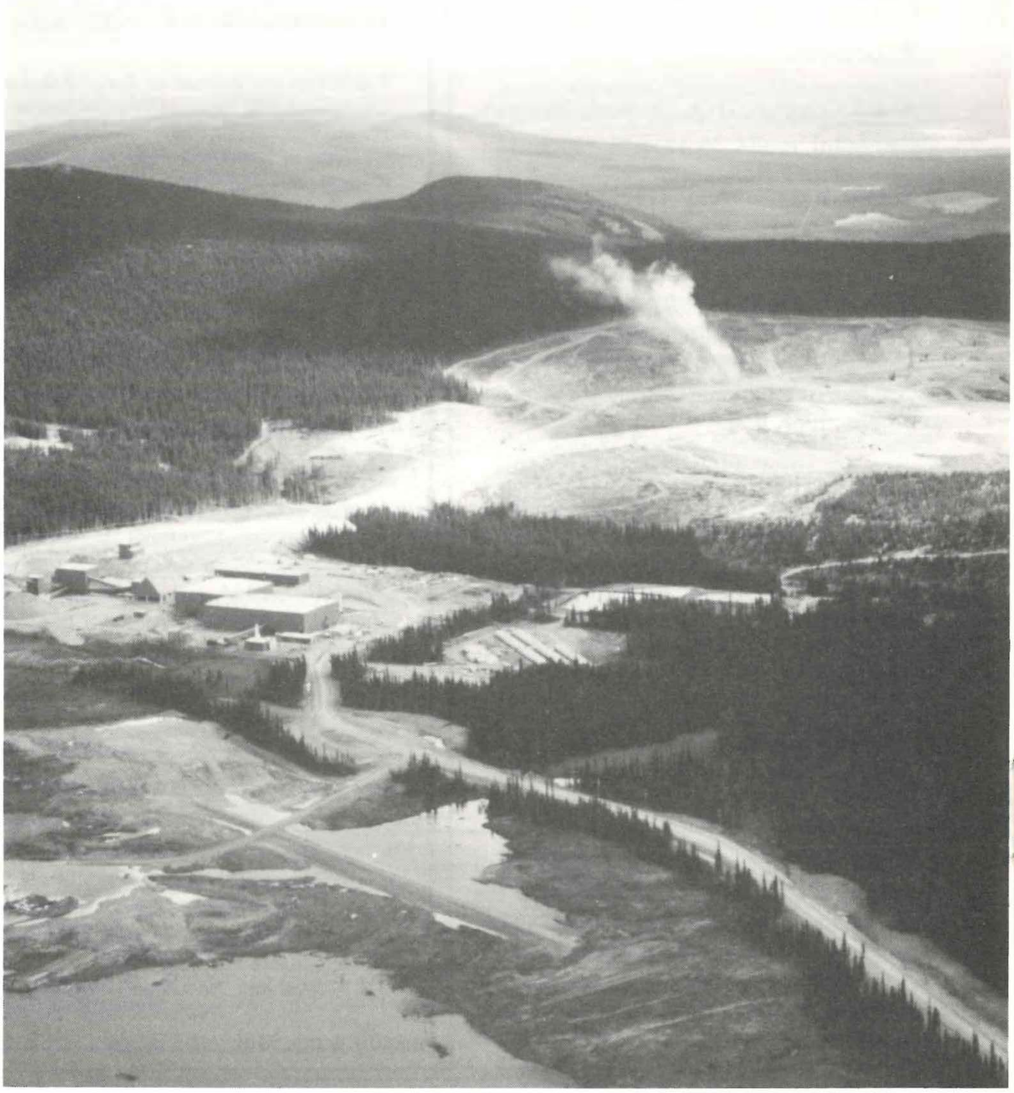
For most leading commodities 50 to 80 per cent of Canadian production is sold in the US market.
Photo below shows the Equity Silver Mines Plant and Southern Tail Pit, Houston, British Columbia.

Introduction

One of the primary characteristics of the Canadian non-fuel mineral industry is its high degree of export dependency. This, in turn, has two major dimensions. First, approximately 80 per cent of Canadian mineral production is exported in one of three forms: crude; refined or semi-fabricated. Second, approximately 65 per cent of Canada's mineral exports are shipped to the USA.

This "high" degree of dependency is of increasing concern to Canadian policy makers. The root cause is growing international protectionism, which, when combined with weak global demand for many minerals and metals, presents a gloomy picture for the short and medium term. Of particular concern is US protectionism in its many guises, especially countervail and escape clause action. Indeed, for these reasons and many others, the Canadian government is currently engaged in freer trade discussions with the USA. The primary Canadian objective is to attain enhanced security of access to the US market.



In operational terms, this means an effective exemption for Canada from US contingency protection measures such as countervailing duties. In return, the USA is said to be seeking greater access to the Canadian service sector, national treatment of investment, and, most importantly for purposes of this paper, a curtailment of Canada's purportedly extensive subsidization practices.

The purpose of this paper is to expand on some of the above issues. More specifically, I shall discuss, in some depth, the extent to which the Canadian mineral industry is dependent on US market access. I shall then address one of the most contentious issues affecting the Canadian mineral industry in the current US/Canadian trade discussions, the subsidy question.

Trade dependency

From Table 1, it is clear that non-fuel mineral exports constitute a substantial proportion of Canada's total exports. Nevertheless, the percentage has slowly fallen in recent years from 26 per cent in 1970 to the current level of 14 per cent. It should also be noted that exports of nonfuel minerals in crude form, in 1986, accounted for 32 per cent of total mineral exports; interestingly, this proportion, which had been rising over time, is now back to its 1970 level. The reader should also note that in 1986, the percentage of non-fuel mineral exports in crude, refined, and semifabricated form, destined for the USA, was approximataly 32, 76, and 88 per cent of each category, respectively. It should also be noted that the proportion of smelted/refined and semi-fabricated

Table 1

Canada, percentage distribution of non-fuel mineral exports'[1] selected statistics, 1970—1986 (in %)

	1970	1975	1980	1981	1982	1983	1984	1985	1986
Crude mineral[2] exports as a % of total mineral exports	32.6	42.0	37.1	38.5	36.2	34.9	34.3	35.5	32.0
Crude mineral exports as a % of exports, all products	8.4	7.5	7.5	7.0	5.5	5.1	5.0	4.8	4.6
Total mineral[3] exports as a % of exports, all products	25.7	17.9	20.2	18.3	15.2	14.5	14.4	13.4	14.4
Crude mineral exports to the USA as a % of total crude mineral exports	47.7	44.0	36.3	39.6	33.7	36.7	39.4	32.0	32.0
Smelted & refined mineral exports to the USA as a % of total smelt/refined mineral exports	36.6	47.8	60.1	66.2	64.1	67.6	70.3	66.3	76.3
Semi-fabricated mineral exports to the USA as a % of total s-fabr mineral exports	67.2	71.2	72.4	82.8	72.2	85.2	87.8	89.1	88.4
Total mineral exports to the USA as a % of total mineral exports	45.3	50.4	53.7	59.4	55.0	60.4	63.8	59.6	65.0

Notes:

[1] As implied by the term, the nonfuel mineral classification excludes oil, gas and coal. However, it includes uranium.

[2] Note that all mineral categories listed herein refer to non-fuel minerals only; see note 1 for details.

[3] Includes crude, smelted/refined, and semi-fabricated, non-fuel mineral exports.

Sources:
Derived from data published by Statistics Canada and Energy, Mines and Resources Canada.

non-fuel mineral exports shipped to the USA has been steadily increasing over time; on the other hand, the corresponding statistic for crude non-fuel mineral exports has been declining slowly since 1970. Furthermore, it can be seen that Canada's dependence on the USA increases as the degree of mineral processing increases. For instance, USA purchases approximately 88 per cent of Canada's semi-fabricated metal exports but only 32 of its crude mineral exports.

The importance of the US market to Canadian mineral producers is further revealed in Table 2. Note that no other market is even close to the US market in relative importance. Equally obvious is the tendency of the Japanese and "other" purchasers to acquire minerals in raw form and to upgrade them at home. Perhaps surprisingly, in 1986, the Japanese market only accounted for 6.3 per cent of total Canadian non-fuel mineral exports; this is down from 9.1 per cent in 1970. Hence, it would take substantial growth in this or in "other" markets to offset even a modest decline in shipments to the USA induced by new non-tariff trade barriers of one form or another. Although exports to the EEC have been relatively stable since 1983, exports to this market have declined substantially since 1970; more specifically, the share of total Canadian non-fuel mineral exports, to what are now EEC member countries, has declined from 32 per cent in 1970 to 13.5 per cent in 1986. On the other hand, the share of total Canadian non-fuel mineral exports to the USA has increased steadily from 45 per cent in 1970 to 65 per cent in 1986.

Table 3 presents information on the degree of dependence of leading Canadian mineral exports. It can be seen that dependence on the US market ranges from 92 per cent for gold to 8 per cent for sulphur. However, for most leading

Table 2

Canada, percentage distribution of non-fuel mineral exports, by major markets and stages of processing, selected years
(in %)

	1970	1975	1980	1981	1982	1983	1984	1985	1986
United States									
crude	47.7	43.0	36.3	39.6	33.7	36.7	39.4	32.0	32.0
smelted/refined	36.6	47.8	60.1	66.2	64.1	67.6	70.3	66.3	76.3
semi-fabricated	67.2	71.2	72.4	82.8	72.2	85.2	87.8	89.1	88.4
total non-fuel	45.3	50.4	53.7	59.4	55.0	60.4	63.8	59.6	65.1
EEC									
crude	33.3	28.1	28.2	24.9	28.6	25.9	22.9	25.3	25.9
smelted/refined	36.8	35.8	20.8	15.7	13.4	11.2	10.5	12.6	9.5
semi-fabricated	13.4	8.3	8.1	5.3	8.9	5.1	3.9	3.5	4.0
total non-fuel	31.8	27.1	21.0	17.1	17.8	15.1	13.2	14.9	13.5
Japan									
crude	10.2	20.0	16.6	13.0	13.5	14.5	12.3	12.7	13.7
smelted/refined	11.3	1.6	4.0	4.3	5.4	5.3	6.4	5.3	3.7
semi-fabricated	0.5	0.3	1.4	0.5	1.2	1.1	0.7	0.8	1.0
total non-fuel	9.1	9.0	8.2	6.9	7.4	7.7	7.1	6.9	6.3
Other									
crude	8.9	8.9	19.0	22.5	24.2	22.9	25.4	30.0	28.4
smelted/refined	15.4	14.9	15.1	13.8	17.1	15.9	12.8	15.8	10.5
semi-fabricated	19.0	20.2	18.2	11.4	17.7	8.7	7.6	6.5	6.7
total non-fuel	13.8	13.4	17.1	16.6	19.8	16.9	15.9	18.6	15.3

Source:
Derived from data provided by Energy, Mines and Resources Canada.

commodities, 50 to 80 per cent of Canadian exports are sold in the US market.

The overall message is clear: mineral exports are an important component of total Canadian exports and approximately 65 per cent of all such exports are destined to one country — the USA. Unfortunately, growing protectionism in the USA is threatening to further limit access to this important market.

SUBSIDIES

Overview

As noted in the prior section, one of the most contentious issues facing the Canadian mineral sector in the current freer trade negotiations with the USA is the "subsidy" question.[1] Many Americans appear to believe that Canada engages in extensive trade distorting subsidization practices.[2] It is perhaps for this reason that the USA is pressing Canada to agree to curtail its purported activities in this regard. However, it will be difficult for Canada to accede to these demands. For example, as recently as May 1987, the Government of Canada reaffirmed its commitment to "the development of the minerals and metals sector as a foundation for regional economic development".[3] Furthermore in announcing the new policy, the Minister of State for Mines and Forestry stated:

> The second objective is to foster the development of the minerals and metals sector as a foundation for regional economic development. In many of the poorer areas of Canada, there are simply no jobs other than in our resource industries. Rather than try to change this fact, we must build upon this strength to promote development in these regions.[4]

Given that effective regional development policies are difficult to design without the indirect or direct provision of assistance to producers, it appears as if the subsidy question will continue to be important in US/Canadian trade relations.[5] This view is reinforced by the fact that, in the Canadian context, such subsidies are likely to be trade distorting and therefore open to possible countervail action. Fortunately, most Canadian-based assistance programs currently benefit the gold industry. This industry is not likely to be a candidate for US trade action since US gold producers are, by and large, in a healthy financial position. Nevertheless, as will be discussed below, other segments of the Canadian mineral industry are vulnerable to US trade action.

Before proceeding, let us briefly digress and define the term subsidy. Although many competing definitions are available, the Shanz[6] version is closely atuned to the perspective adopted in this paper. According to Shanz:

> In the simplest of economic terms, a subsidy occurs when the government through its actions enables producers of goods and services to avoid full payment for the factors of production and/or to behave differently in the market place than they would otherwise.[7]

Table 3

Canada, percentage distribution of value of mineral exports, by commodity and destination, 1986[a]
(per cent)

	USA	EEC	Japan	EFTA	Others	Total
Iron	74.4	17.9	1.5	0.3	5.9	100.0
Gold	92.0	1.0	5.8	0.6	0.6	100.0
Aluminium	77.7	2.0	7.0	1.6	11.8	100.0
Nickel	38.7	33.1	2.7	17.9	7.6	100.0
Copper	43.1	16.5	27.8	3.9	8.8	100.0
Sulphur	8.4	11.4	0.0	0.0	80.2	100.0
Uranium	67.2	30.0	0.8	0.9	1.1	100.0
Potash	51.4	5.3	6.8	0.1	36.4	100.0
Zinc	54.1	27.3	5.3	1.1	12.3	100.0
Asbestos	12.1	29.5	12.2	2.7	43.5	100.0
Silver	85.4	1.6	11.7	0.1	1.3	100.0
Other	68.4	21.8	4.3	1.2	4.4	100.0
Total	**65.1**	**14.2**	**6.0**	**2.0**	**12.7**	**100.0**

Note:
[a] Preliminary estimates.

Source:
Derived from Energy, Mines and Resources Canada, *The Canadian Mineral Industry: Monthly Report,* April 1987, Table 10.

Although this definition fails to alert the reader to the distributional ramifications of government assistance, it does suggest that a subsidy can be conferred by means other than a direct payment and does not necessarily lower costs or prices. Indeed, the Shanz definition captures the spirit of the current debate wherein any government activity which improves the financial position of the recipient, relative to that prevailing in the absence of the program, is said to constitute a subsidy.

It is important to stress that a cash payment is only one type of subsidy. Benefits can be conferred through a host of policy instruments: tax preferences; tariff and non-tariff barrier protection; concessionary financing; direct government provision of services such as export promotion; and government support of research and development, and infrastructure. This is not an exhaustive list, but intended to convey the fact that government can confer benefits on producers in many forms. It must also be noted that, in the context of international trade, a subsidy does not necessarily reduce a firm's production costs. For example, the imposition of a tariff or trade barrier of any sort confers benefits by increasing the price of competing products, not by reducing production costs.

In the context of US/Canadian mineral relations, the subsidy issue has largely arisen over cases in other resource industries. In particular, in the ground fish[8] and softwood lumber[9] cases, the *US International Trade Administration* (USITA) ruled that many regional development policy instruments employed by federal and provincial governments convey a countervailable subsidy. The USITA's preliminary ruling in the softwood lumber case is particular interesting. Leaving aside the "stumpage" issue,[10] it is noteworthy that seven provincial government programs, five federal government programs, and four federal/provincial programs were deemed to confer trade distorting subsidies to Canadian softwood producers. Among the programs identified were: Investment Tax Credits; Regional Development Incentives Program; General Development Agreements; BC's Critical Industries Act; and Quebec's Tax Abatement Program.

It should be apparent to Candian mineral producers that they too are, and will likely continue to be, frequent users of such programs, and hence potentially vulnerable to countervail action. However, it must be stressed that receipt of government assistance, as determined by the USITA, is only one part of the countervail test. The second condition involves an examination by the *United States International Trade Commission* (USITC) of the relationship between subsidized imports and the economic viability of US producers. If the USITC finds that the "subsidized" imports have caused material injury to domestic producers, then countervail duties are instituted unless the offending nation undertakes remedial action satisfactory to the US-based plaintiffs.

Notwithstanding this two-part test, the Canadian mining industry has cause for concern. First, rules are defined in such a way as to label virtually all industry, firm, and region specific programs as contervailable subsidies. Second, given that approximately 65 per cent of Canadian mineral export are shipped to the USA, virtually all assistance programs which assist the Canadian mineral industry are potentially trade distorting. Third, and perhaps most important, a large part of the US mineral industry is in severe economic difficulty. Hence, the likelihood of the USITC finding that "subsidized" imports have, in large part, resulted in domestic hardship, is now much greater than it was prior to, say, the early 1980s. Therefore, it is not surprising that elements of the US uranium, potash, zinc and copper industries appear to be taking an unusual interest in Canadian government assistance programs.

In an attempt to curtail such actions and to restore secure access of Canadian commodities to the US market, the Canadian government has zealously pursued freer trade negotiations with the USA. However, as noted above, the subsidy issue is likely to prove difficult to resolve. For instance, the subsidies are an important part of the policy toolkits of most governments, especially with respect to regional development objectives. Hence, the debate is expected to revolve around questions such as acceptable and unacceptable subsidies and tolerable levels of subsidization. These issues are addressed in the remainder of this article.

Conceptual issues

According to that branch of economics known as welfare economics, governments seek to maximize the welfare of their citizens. This is achieved by determining the optimal bundle of goods and services which satisfies, to the extent possible, society's preferences, subject, of course, to prevailing resource constraints. Leaving aside the mechanics of the process and the lengthy list of qualifications and assumptions which lie behind the analysis, it can be said that most nations display a preference for a mix and level of outputs which cannot be entirely satisfied through the market mechanism. For instance, the citizens of market economies generally express a desire for some non-zero level of activity with respect to defence and economic security, income equality, human justice, national pride, self-determination (sovereignty), regional equality, and environmental and cultural preservation.

In order to achieve the optimal mix of these market and nonmarket objectives, governments are required to employ policies which may affect private firms in either a positive or a negative fashion. Aside from the imposition of taxes required to raise revenue to support general services, firms may be hindered by the imposition of numerous taxes, regulations and procedures which add to their production costs and which serve to reduce their international competitiveness. Despite the negative impact on the firm, such policies are undertaken because they are expected to yield net benefits to society.

On the other hand, the efficient attainment of other societal objectives may require the government to offer inducements to private firms to engage in activities which they would not otherwise undertake. For instance, the desire to promote economic activity in certain regions of the nation may lead governments to build infrastructure, provide tax incentives, offer some services at rates inconsistent with full cost recovery, and provide concessionary finance. Such activities are known as subsidies. Note that they are not inherently "bad"; indeed, one might argue that they are inherently "good", since they lead to an increase in society's welfare. Rephrased, such an "all-knowing" government would undertake assistance programs only if it expected the social benefits to exceed the social costs. Therefore, we may label such subsidies as "efficient" subsidies.

Despite the fact that such assistance programs are assumed to be beneficial to the nation granting the subsidies, they may nevertheless generate spillover effects on other nations. Indeed, this is in large part the essence of the "unfair competition" charge and the general presumption that subsidies are "bad". More explicitly, if nation A provides assistance which allows a mine to be developed which would otherwise not be developed, it may impact negatively on the economy of Nation B. The latter may lose markets and face lower prices than it would if the subsidy had not been granted. If this is the case, one can expect producers in B to object — to label the subsidy as a form of unfair trading. nation B may suffer other injuries: its ability to provide defence and economic security services to its citizens may decline; it may also suffer regional economic hardship.

On the other hand, a subsidy in A may benefit nation B. For instance, consumers in B should benefit from lower prices, and manufacturers in B using the subsidized product (exported from A) should also benefit. Therefore, the overall effect on B is not intuitively; it depends upon B's goals and objectives. Nevertheless, given that producers and their workers are likely to be regionally concentrated and may be seriously injured, and that the consumers are widely diffused and individually benefit to only a small degree, the former can be expected to exercise substantially greater political clout than the latter. Hence, subsidies granted by A will usually be viewed by B in a negative fashion, regardless of their overall economic impact on B.

In a real world setting the situation becomes even more complicated. First, the political process is highly imperfect, and hence it is impossible to say that A's government's benefit and penalty programs always lead to an improvement in A's economic welfare. It may be that vote-seeking or patronage objectives play a large role in the resource allocation process. As a result, it is possible to accept the more widely accepted view that some subsidies are "unacceptable" or "inefficient". Unfortunately, the decision process is highly judgemental: what is appropriate to one person may represent a highly wasteful activity to another. The world becomes exceedingly messy when it is realized that B also subsidizes and penalizes its firms and that these practices, in turn, affect nation A. Extension of the approach to numerous nations makes the full extent of the problem clear.

Let us now turn to see how the above analysis can be used to shed light on the current conflict between Canada and the USA over the subsidy question.

Current practices

Without getting into great detail, it can be said that, according to US contervail duty legislation, a subsidy is defined so broadly as to include virtually any government expenditure activity which improves the net economic position of a firm, regardless of intent or method.[11] For instance, according to Section 771 (5) of the *Tariff Act of 1930,* a subsidy is defined as follows:

> The term "subsidy" has the same meaning as the term "bounty or grant" as that term is used in Section 303 of this Act and includes, but is not limited to, the following:
>
> (A) Any export subsidy described in Annex A to the Agreement.
>
> (B) The following domestic subsidies, if provided or required by government action to a specific enterprise or industry, or group of enterprises or industries, whether publicly or privately owned, and whether paid or bestowed directly or indirectly on the manufacture, production or export of any class or kind of merchandise:
>
> - The provision of capital, loans or loan guarantees on terms inconsistent with commercial considerations.
> - The provision of goods or services at preferential rates.
> - The grant of funds or forgiveness of debt to cover operating losses sustained by a specific industry.
> - The assumption of any costs or expenses of manufacture, production or distribution.

Given that this definition is extremely broad, administrative and judicial practice has combined to produce a more pragmatic definition of a countervailable subsidy. The current practice appears to contain two important elements. First, the so-called *de minimis* rule results in termination of the countervail process if the total effect of the countervailable subsidies is less than 0.5 per cent of the selling price. Second, under the current interpretation of the specificity rule, assistance provided to specific industries, firms and regions are potentially countervailable. On the other hand, economy-wide or macro-economic subsidies are not considered to be countervailable.[12]

The interested reader should review the USITA's recent findings in the ground fish and softwood lumber cases. As stated previously, many federal and provincial government programs designed to promote resource development and to address regional economic disparity have been labelled as countervailable subsidies. It is such US action that has led Canadian politicians from all political parties to express concerns about Canadian sovereignty.

Policy proposals

If we combine the information presented in the two preceeding sub-sections, some of the reasons for the current dispute become apparent. The current US countervail system allows producers to initiate countervail action based only on an examination of subsidization practices of foreign-based competitors — say, those in Canada. Furthermore, in demonstrating economic hardship, they will undoubteldy point to government-mandated costs which they must bear, especially those which are not borne by their competitors. While this is a natural bargaining ploy, it reveals only part of the information needed to fully understand the conflict.

In my opinion, it would be more appropriate to consider all of the costs and benefits affecting both Canadian and American producers in the affected industry. For example, before Canadian producers are deemed to have benefited from trade-distorting subsidies, a two-part test should be undertaken. First, the "net" subsidy to the Canadian industry under scrutiny should be calculated; this involves estimating both the benefits (commonly labelled as subsidies) and the costs imposed by Canadian governments. If the net benefit is positive, a sufficient condition for further examination exists, and a second test should be undertaken. This procedure, which is denoted as the "net/net" subsidy test, involves a comparison of the net subsidies available to both Canadian and US-based producers of similar products.[13] If, and only if, the net subsidies available to the former producers exceed those available to the latter, is there then sufficient grounds for finding Canadian producers guilty of receiving trade relevant subsidies.

If a link between such subsidies and domestic injury is found, then countervail duties, equivalent in magnitude to the difference in net subsidies between the nations, should be applied. Furthermore, in order to preclude the advancement of trivial cases, the *de minimis* rule could be employed as an integral part of the dispute resolving mechanism, with the cut-off point as it applies to the net/net subsidy calculation being set at, say, 2 or 3 per cent. Although this example has looked at US countervail action against Canadian producers, it must be stressed that the test applies equally well to Canadian concerns about US subsidization practices, which appear to be much more widespread than US protectionists acknowledge.

The proposal possesses the advantage that the most difficult part of the calculation is already being made: the estimation of benefits conferred by foreign governments. Surely if a nation can estimate the benefits conferred by other governments, it can do so for its own domain. Furthermore, the estimation of costs imposed by each government on its firms should be no more difficult than the estimation of benefits.

In summary, the scheme has the advantage of applying similar definitions and measurement techniques to economic activity in each nation under scrutiny. This is in contrast to the highly selective and undoubtedly biased process currently in use, whereby the party alleging damage looks only at subsidization practices in foreign nations and ignores home country practices. Furthermore, the costs imposed on foreign producers are ignored while home country government-mandated costs are widely discussed. Therefore, the promulgated procedure should narrow the range of conflict and reduce the likelihood that countervail action is initiated for blatantly protectionist reasons.

It must be admitted that the implementation of a net/net subsidy test will face difficult measurement and definitional problems. One must decide upon activites deemed to be trade-distorting subsidies. Equally troubling will be the selection of an appropriate time period: should the analysis focus on present activities or should past practices be considered? Whether such issues can be resolved is somewhat debatable.

It must also be stressed that the net/net subsidy test deals with only one half of the countervail duty test. It attempts to provide a broader, more rigorous test for the measurement of subsidies. However, it does not address the relationship between subsidies and material hardship. Given that the current system for establishing this relationship appears to possess little economic merit, a stronger test should be developed.[14] A partial solution to this problem could be to exempt, say, Canadian exports from potential countervail action if Canadian exports constitute less than a given percentage of US imports. This test would, of course, be reciprocal with respect to US exports to Canada.

These three changes to the current countervail system, with respect to Canadian and US trade, would provide Canadian mineral exporters with much greater certainty of access to the US market. On the other hand, US pro-

Canada is a major supplier of many minerals and metals to the US Market. Advertisement from the Canadian Mines Handbook 1985/6.

ducers would be protected against subsidization practices in Canada which confer net benefits to Canadian producers in excess of those received by US producers.

Conclusion

In summary, this article has attempted to demonstrate that Canadian mineral producers are highly and increasingly dependent on access to the US market, and that subsidies are an important and legitimate instrument of government mineral policy. From a domestic perspective, there is no *a priori* reason for labelling any subsidy as unacceptable. However, actual practice may provide support for a counter view in many instances. On the other hand, the potential for serious spill-over effects on other nations suggests that subsidization practices are likely to be an on-going source of trade irritation.

The latter part of this work addresses the trade irritation problem in the context of a US/Canadian trade agreement. In this regard, a pragmatic method for examining the subsidy question is proposed. More specifically, it is suggested that the net/net subsidy test could serve as a useful part of a dispute resolving mechanism with respect to trade in natural resources.

Notes:

[1] See Christian Yoder, "The Evolution of Resource Protectionism in the United States", unpublished paper delivered at a conference sponsored by the Canadian Institute for Resources Law, Banff, Canada, 1987-05-07; Debra Steger, "Free Trade and the Mineral Industry in Canada", unpublished paper delivered at the Annual General Meeting of the Prospectors and Developers Association of Canada, Toronto, Canada, 1987-03-10; and David L Anderson, "The Subsidy Debate and US/Canadian Trade in Minerals: A Canadian Perspective", a paper presented to a conference on Public Policy and Competitiveness of US and Canadian Metals Production, Colorado School of Mines, 1987-01-29.

[2] For example, see Robert J Muth, "The Death of US Mining: A Premature Obituary?", an unpublished paper delivered at the Canadian Mineral Outlook Conference, Ottawa, Canada, 1987-05-20; and Angela Kryhul, "Canadian Aid to Mining Seen as Detrimental to Free Trade", *American Metal Market, 1987-06-03.*

[3] *Energy, Mines and Resources Canada, The Mineral and Metal Policy of the Government of Canada,* Ottawa, May 1987.

[4] Hon Gerald Merrithew, Minister of State for Forestry and Mines, (Canada) "Notes for an Address", presented to the Mineral Outlook Conference, Ottawa, 1987-05-20, p 3.

[5] This follows from most commonly accepted definitions of a subsidy. It clearly does so from the definition utilized in this paper — see p 39–40.

[6] John J Shanz Jr, *The Subsidization of Non-Fuel Mineral Production at Home and Abroad,* CRS Report 87-625, Washington: Congressional Research Service, 1987.

[7] *Ibid,* p 2.

[8] US International Trade Administration, "Final Affirmative Countervailing Duty Determination: Certain Fresh Atlantic Groundfish from Canada", (C-122-602) Washington, March 1986.

[9] US International Trade Administration, "Preliminary Affirmative Countervailing Duty Determination: Certain Softwood Lumber Products from Canada", (C-122-602), Washington, October 1986.

[10] Stumpage fees are user charges levied on forestry firms for the priviledge of logging. In the soft-wood lumber case, the US industry argued that, in effect, Canadian provincial governments were not extracting the available economic rents from their timber lands. Hence, Canadian firms were being indirectly subsidized since they were purportedly not paying "full" cost for their inputs. For a good discussion of the stumpage debate, see Christian Yoder, "The Evolution of Resources Protectionism in the United States".

[11] See *ibid*; and Gary C Hufbauer and Joanna S Erb, *Subsidies in International Trade* Washington: Institute for International Economics, 1984, pp 9-13.

[12] Recent US policy and political initiatives suggest that the definition is now widening. See Christian Yoder, "The Evolution of Resources Protectionism in the United States"; Debra P Steger, "Free Trade and the Mining Industry, *CRS Perspectives, No 27, June 1987; and I M Destler, American Trade Politics: System Under Stress* Washington: Institutes for International Economics, 1986.

[13] In the context of the mineral industry debate, the net subsidy concept has been implicitly promulgated by Peter Glenshaw (see Glenshaw Incorporated, *Subsidization in the Mining Industry*) Debra P Steger, "Free Trade and the Mineral Industry in Canada"; and John Shanz, Jr (see "The Subsidization of Non-Fuel Mineral Production at Home and Abroad" and *The Subsidization of Natural Resources in the United States).* In a broader context, Canadian researches have frequently criticized US countervail practices for failing to take account of US domestic subsidies; that is, for failing to adopt a net subsidy approach. For example, see Edward A Carmichael, *New Stresses on Confederation: Diverging Regional Economics* Toronto: CD Howe Institute, 1986; and Alan M Rugman, "US Protectionism and Canadian Trade Policy", *Journal of World Trade Law,* forthcoming.

[14] For reference to this problem see Debra P Steger, "The Impact of US Trade Laws on Canadian Economic Policies, in *Policy Harmonization — The Effects of Canadian-American Free Trade Area,* Toronto: CD Howe Institute, 1986; and Alan Rugman and Andrew Anderson, "Administered Protection: US Trade Law as a Non-Tariff Barrier to Trade", *The World Economy,* forthcoming.