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PROTECTIONISM AND NATIONAL SECURITY: THE CASE OF CANADIAN URANIUM EXPORTS TO THE UNITED STATES

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Summary

Canadian-American trade in energy commodities has been characterized in the past few years by a reduction in trade barriers, but the trend may soon be reversed in one energy commodity, uranium. This article describes and analyzes the current protectionist challenge to Canadian uranium exports to the United States. Argued here is the position that the significant penetration of the U.S. market by Saskatchewan uranium during the past three years, and the anticipated further penetration of that market during the remainder of this decade, will likely lead to an intensification of pressure for import protection on the part of a beleaguered American uranium industry--an industry that simply cannot compete with the high-grade, low-cost Saskatchewan producers. The two issues most likely to complicate free trade in uranium consist in one trade-policy question (Canada's further-processing requirement for uranium concentrate), and one national-security question (Canadian non-proliferation policy and the prohibition on use of Canadian uranium for American military purposes).

PROTECTIONISM AND NATIONAL SECURITY: THE CASE OF CANADIAN URANIUM TO THE UNITED STATES

Introduction: Rising American Protectionism?

The past few years have witnessed a distinct trend toward Canada-U.S. freer, if not free, trade in energy commodities, but the trend may soon be reversed for at least one of these commodities, uranium. It has only been three years since the U.S. lifted the remaining restrictions it had placed, back in the mid-1960s, on imported uranium; already, however, there looms the possibility that barriers to trade may once more be erected to repel what many analysts perceive to be a rapidly rising tide of imports--especially Canadian imports--into the American market during the next decade. A host of charges has been brought against Canadian (and other foreign) uranium suppliers by protectionist forces in the U.S., and the purpose of this article is to examine the case against imports currently being made by the beleaguered American uranium industry and its Congressional defenders. I will attempt to show that, for the most part, allegations of "unfair trading" directed against Canada are without much solid support; nevertheless, there is one trade question, the "further-processing" issue, that may be expected to complicate the lives of Canadian producers in future. Moreover, there is at least a plausible "national-security" justification for the U.S. to erect partial barriers to imports. Though it would be alarmist to suggest anything like the total import embargo of recent decades would ever be re-created by Washington, it would nonetheless be imprudent to discount, and to fail to plan against, the prospect of some reduced access for Canadian producers to the U.S. market during the latter part of this decade.

The United States seems, to most observers, to have been veering in a protectionist direction in recent months. The pressures for import restrictions

have been growing more intense, stimulated in no small measure by the record American trade deficit, which in 1985 was nearly $150 billion. Protectionist voices in Congress are especially strident, and the noise level on Capitol Hill is said to be making life ever more uncomfortable for a President who nearly all concede has a deeply rooted commitment to free trade. To date, much of the protectionists' attention has been focussed on one country, Japan; Canada has been mainly overlooked by those who are most passionate in their calls for protectionism, partly due to the oft-noted propensity of Americans to pay little heed to their northern neighbour--a propensity that some in this country argue can work in Canada's favour, given that we are, after Japan, the largest "contributor" to the American trade deficit, having run a U.S. $20-billion surplus in bilateral trade during 1984. But the omission of Canadian products from most allegations concerning unfair trading also stems from a feeling in the United States that Canada's primary and secondary industries are being buffeted by precisely the same forces that are afflicting their American counterparts; anyone familiar with recent analyses of "structural change" and the Canadian mining industry will appreciate that, in many instances, both North American economies are confronting similar burdens of adjustment to the harsh international economic climate of the 1980s.

There are, however, some notable exceptions to the pattern of exemption for Canada from the fever of protectionism, and, among mineral commodities, none is as likely to be the target of import restrictions as uranium; indeed, it is evident that, as far as the U.S. uranium industry is concerned, the chief danger to its continued existence comes from Canada.

Consider the wording of a sense-of-the-Senate resolution introduced during the summer of 1985 by Senators Bingaman and Domenici of New Mexico, the

uranium-producing state that has experienced massive declines in production in the past two years. The resolution contains a set of allegations about Canadian trading practices in uranium. Canada, it is charged, is not playing fairly: it is dumping its uranium in the U.S. market at prices considerably lower than those offered in the Canadian market; it is subsidizing its uranium producers excessively, at both the federal and provincial levels of government; it is distorting market forces by requiring the upgrading of uranium concentrate (U_3O_8) to uranium hexafluoride (UF_6) prior to export; it is restricting the amount of American investment in its uranium industry; it is reviewing export contracts and reserving the right to change their terms; and, for good measure, it encumbers its exported uranium with stipulations that it not be used for military purposes. In short, America's "growing dependence on foreign sources of supply and a variety of highly questionable trading practices involving Canadian sales or uranium and hexafluoride threaten to destroy the industry as we know it" in the United States (Congressional Record, 1985:S8445-6).

The day after the Bingaman/Domenici resolution was read on the floor of the Senate, the House Committee on Interior and Insular Affairs' Subcommittee on Energy and the Environment held an oversight hearing on uranium import restrictions. In addition to repeating some of the allegations raised in the Senate, House champions of the domestic uranium industry proposed a series of measures that they hoped might yet reverse the decline of the industry. Congressman Richardson of New Mexico read out a series of measures he wished implemented: a requirement that the U.S. government acquire all of its uranium domestically; the imposition of restrictions on imports of enriched uranium; the re-imposition of an enrichment embargo on foreign uranium intended to be used by American utilities; the placing of an "energy security fee" on all uranium

imports; and the establishment of a requirement that domestic utilities get 75% of their uranium from domestic producers. As did the Senate resolution, the Richardson statement included a demand that the U.S. uranium industry be declared "non-viable" by the Secretary of Energy, John S. Herrington (U.S. House of Representatives, 1985).

Assessing the "Unfair-Trading" Allegations

There can be no question that the American uranium industry is in trouble; nor is there any doubt that imports have risen sharply in the past few years, ever since the U.S. lifted the last of the restrictions it had imposed, in 1966, on the use of foreign uranium by domestic utilities.[1] During 1984, U.S. production of U_3O_8 plummeted to 7,450 short tons, a 65% decline from 1980's record output of 21,852 tons.[2] U.S. mills at the end of 1984 were operating at less than a quarter of their rated capacity of 51,650 tons of ore a day, and employment in the industry had shrunk to about 3,000, from the 1981 level of 13,676 (U.S. Department of Energy, 1985:16-25). Especially hard hit, though not the only affected state, has been New Mexico, which by early 1985 had seen its uranium industry virtually disappear. Only five years ago, the state's 38 mines and mills were employing 6,000 workers; today, only 280 work at one test mine, and one soon-to-be-closed mill (U.S. House of Representatives, 1985).

While domestic production facilities are closing down, import levels are up. After accounting for only a relatively minor share of U.S. consumption in the early 1980s, imports have surged ahead in the past two years, and now have a 30%-share of the U.S. market under current contracts. This share is projected to increase significantly during the remainder of this decade, by which time imports should account for more than 60% of domestic consumption. Imports are

not the sole, nor are they necessarily the chief, cause of the domestic uranium industry's current plight; other factors worthy of mention in this regard include high American production costs, a relatively low rate of growth in demand for nuclear reactors, and excessive domestic inventory levels, now estimated to stand at four times the utilities' annual requirement for uranium (U.S. Department of Energy, 1984b:xiii-xiv).

Inasmuch as Canada's share of the U.S. import market is large and growing, now constituting more than 60% of import commitments for the 1985-2000 period, and 56% of imports in 1984, it is not surprising that attention has turned to the policies and practices of Canadian governments and uranium producers (U.S. Department of Energy, 1985:ll). As we have seen, Canada is being charged with a host of sins by advocates of protectionism. How else, they argue, could Canada have been so successful in penetrating the American market if it was not resorting to unfair trading practices? In the words of one American union official (and an "international" union at that), "almost all new contracts for uranium [in the U.S.] are for uranium produced abroad. The reason is simple: foreign governments heavily support and subsidize their own uranium industries. They sell their surpluses here at prices below those in their home markets and they pour hundreds of millions of government cash into their own uranium development projects. Our uranium industry cannot survive in the face of that kind of 'competition'" (U.S. House of Representatives, 1985).

There are several ironies of recent Canadian-American uranium trade, and one of them is that there is indeed a "simple" reason underlying Canada's penetration of the American market, only the reason has little to do with this union official's unfair-trading allegations. Let us consider the most frequently mentioned instances of improper conduct. It is charged that Canada is

subsidizing its uranium production. Is there any merit to the charge? Yes, but not enough evidently to allow the U.S. uranium industry to petition successfully for countervailing duties against imports from Canada. The subsidy question is extremely complex, and deserves further study, but for the moment let us address what is perhaps the most visible form of subsidy potentially affecting U.S. interests: Canadian governmental equity participation in the industry, especially at the provincial level. However, the simple fact of government ownership by no means supports the contention of unfair trading, at least not according to U.S. trade legislation. Section 771(5) of the Tariff Act of 1930 (as amended) distinguished two classes of subsidies. Fairly straightforward are the export subsidies (e.g., government provision of export credits at rates lower than the cost of the funds) that are enumerated in the Subsidies Code of the General Agreement on Tariffs and Trade (GATT). Less clear-cut are domestic subsidies, which are forms of government assistance accorded to specific industries or enterprises, or groups of either. According to a recent Department of Commerce study, "government ownership per se does not confer a subsidy. The Tariff Act specifies that government provision of capital constitutes a domestic subsidy only when it is 'on terms inconsistent with commercial considerations'" (U.S. Department of Commerce, 1985:78-79). It has yet to be shown that Canadian, especially Saskatchewan, government provision of capital constitutes a domestic subsidy; nor would it be an easy matter to show this.

Indeed, it is hard at this juncture to establish a credible link between subsidies and the current plight of American uranium producers. In any event, the domestic producers have not shown themselves eager to petition for import relief in the form of countervailing duties. Such duties are often cited as perhaps the most threatening form of "contingent protection" confronting

general Canadian export interests in the American market (Lipsey and Smith, 1985). There is really not much likelihood that they will pose a major obstacle to Canadian uranium exports, and this for a variety of reasons. Probably the most important of these is that even if the two necessary conditions for the imposition of a countervailing duty on Canadian uranium were satisfied--that the International Trade Commission (ITC) found the American uranium industry either to be "materially injured" or to be threatened with such injury by reason of imports, and that the Department of Commerce determined a subsidy to exist, and set the margin of such subsidization--the amount of protection such a duty would accord American producers would likely be nugatory, given the tremendous differentials in cost of production in Saskatchewan compared with those in New Mexico and the other uranium-producing states.[3]

What has been said of the subsidization allegations applies in a sense to another charge of unfair trading: that Canada is "dumping" its uranium in the American market. Superficially, the dumping allegation appears plausible. After all, U.S. law holds dumping to be "a form of international price discrimination, whereby goods are sold in an export market...at prices which are lower than the prices at which comparable goods are sold in the home market of the exporter" (U.S. Congress, 1984:39-40). It is no secret that Canadian uranium is selling in the United States at prices lower--often far lower--than the price Canadian uranium sells for at home. What is not so well appreciated in the U.S., however, is that it is not the high-cost Canadian producers who are doing most of the exporting to the United States. Of the two Ontario (i.e., "high-cost") producers, Rio Algom and Denison, only the former sells to American utilities, and it sells relatively little. Instead, these two producers rely on other foreign markets and on Ontario Hydro, the consumer of the vast majority of uranium used in Canada.

Both producers have long-term sales contracts, on a cost-plus basis, with Ontario Hydro--contracts that have occasioned some grumbling in the province in recent months. Notes one analyst, in something of an understatement: "The conclusion to be drawn is that Ontario Hydro's costs for uranium from its two long-term Elliot Lake contracts may be somewhat higher for the next few years than for material which might have been purchased on the currently depressed spot market" (Runnalls, 1981:70). At current "spot" prices of U.S. $15/lb. U_3O_8, Ontario Hydro is paying its long-term suppliers what amounts to a premium of more than 100%.

A marked aspect of the uranium market is that so little of the product is sold on the "spot" market.[4] Only a tiny fraction of international sales are handled on a spot-market basis, and in 1982 only one percent of total Canadian deliveries (including domestic ones) were under such an arrangement (OECD, 1983:33). Not only does contract-pricing dominate uranium trading, but the terms and prices by which contracts are governed can and do vary enormously. Notes the U.S. Department of Energy: "A striking feature is the range of prices in a given year; the high end of the range is typically 2 to 3 times the low end" (U.S. Department of Energy, 1983:5).

This dramatic variance in pricing, coupled with the fact that the Canadian companies who are charging "high" prices to their Canadian consumers are not, for the most part, the companies that are exporting to the United States, minimizes the likelihood that antidumping duties would be imposed on Canada's uranium exports. The Saskatchewan producers, who would be most affected by an antidumping duty, sell in the foreign market, at prices that are lower, to be sure, than those that Ontario producers are fortunate enough to command from Canadian consumers--but also at prices that are lower than those that American

producers can offer. This does pose a problem for U.S. uranium mining companies, but it is important, in attempting to understand the American inability to compete, that one not introduce extraneous issues. The subsidization and dumping allegations notwithstanding, it appears that even the domestic companies and their lobbying association (the Uranium Producers of America) do not put much credence in their own utterances. How else is one to account for their failure, at a time when numerous other U.S. industries are actively litigating for protection, to take their complaints before the International Trade Commission and the Department of Commerce, the agencies before which countervail and antidumping petitions are presented? Despite the fact that the number of cases coming through the ITC is, according to one agency official, "exploding," the domestic uranium industry has yet to avail itself of what has been termed "probably the richest menu [of import-relief measures] available to any producers any place in the world" (Blum, 1984:503).

Do, then, the actions of the domestic uranium interests speak more loudly than their words? Can one conclude that, despite the sensational charges of unfair trading, Canadian exporters really have little to fear from the mood, rampant in Congress, that the U.S. is being "had" by its trading partners? For the most part, the answer is Yes: Canadian uranium is relatively safe from protectionist assaults on the basis of unfair trading. There is a potential threat to Canadian interests in a national-security context, to be discussed below. But before dismissing altogether the likelihood that Canada will be implicated in unfair trading, it is well to note that there does seem to be at least one major trade-distorting practice followed by Canada that lends a good deal of credibility to the unfair-trading allegations.

This is a "further-processing" issue, namely the requirement that as a

matter of course Canadian uranium be exported in the most advanced stage into which it can reasonably be fabricated in Canada. This does not mean enriching uranium in Canada, a production process that holds little if any prospect of ever being economical in this country. Instead, it is in the stage of the "front end" of the nuclear fuel cycle known as conversion that Canada has recently and rapidly built up productive capacity: today, Eldorado Resources' refining and conversion facilities in Ontario, at Blind River and Port Hope, have the capacity to upgrade all the uranium produced in Canada's mines (Whillans, 1985:63.8). From the point of view of international trade "etiquette" there is nothing wrong with a country having productive capacity in any particular phase of the nuclear fuel cycle; what the U.S. objects to is that Canada, subject to some exemptions (Neff, 1984:153), forces its uranium mills to ship their U_3O_8 to Ontario's conversion facility, thus potentially limiting the amount of business available to the two American conversion operations run by Allied Chemical and Kerr-McGee.[5]

Officials I spoke with at agencies in Washington that are considered to be committed to trade liberalization (e.g., the departments of State and Energy, and the Office of the U.S. Trade Representative [USTR]) all cited Canada's policy on U_3O_8 upgrading as one of the biggest impediments they face when attempting to deflect protectionist thrusts. Conversely, the protectionist lobby, while bemoaning Canadian policy, concedes that the further-processing issue constitutes one of the Uranium Producers of America's trump cards. One lobbyist for protection candidly told me: "As an advocate of the domestic mining industry I just hope that the Canadian government continues their policy on upgrading. It puts the USTR on the hot plate."

Canada's policy on further processing of minerals is a long-standing one

that antedates the country's uranium industry; it can be traced back to the early years of this century, a time when Inco was repeatedly confronted by demands from both the federal and provincial (Ontario) levels of government to refine its nickel ore in Canada (Main, 1955:51). It is another irony of bilateral uranium trade that the one policy that most lends itself to characterization as a protectionist measure was introduced by a politician who is currently championing a Canadian-American free-trade arrangement. In a September 1974 policy statement, Energy Minister Donald Macdonald announced that unless specific exemption were granted, all Canadian U_3O_8 would have to be upgraded to its most advanced form (i.e., UF_6) prior to export; this policy was reaffirmed in September 1983 (Runnalls, 1981:8-9).

The further-processing wrangle notwithstanding, the truly "simple" explanation for Canadian dominance of the U.S. import market is this: no one can match the ore grades of the Saskatchewan mines that have been brought into production in recent years. Canadian uranium has a cost advantage that ultimately has little to do with policies or politics, and nearly everything to do with geology. Few producers in the world can make money at the current spot price of about \$15/lb. U_3O_8. American mines for the most part require a price twice as high just to break even; and though contract prices are generally higher than the spot-market price, the salient fact is that utilities in the United States are finding that better terms are available from Canadian than from American producers. For example, in 1983 the average domestic contract price was \$37.81/lb., the average foreign contract price, \$26.16.

But Saskatchewan producers can make money, even at low spot-market prices (Anderson and Barnett, 1983:200-1). Easily the single most important factor accounting for their low production costs is ore grade. George White, a

senior executive of Nuexco, recently explained that "the leverage obtained from high-grade ore is tremendous. Grade is the name of the game" (Blundell, 1985-16). In the United States, during the 1970s, ores were being mined that had an average uranium content of 0.2%; by the 1980s, ore grades had declined to 0.1% (U.S.Department of Energy, 1984:47). In Saskatchewan, on the other hand, ore grades of 2 to 3% are being exploited at Key Lake, the world's largest production centre. Waiting in the wings, and still a few years away from producing, is the awesome Cigar Lake deposit, "the world's largest high-grade uranium deposit," with an estimated 110,000 tU in ore averaging 12% [!] uranium (Energy, Mines and Resources Canada, 1985:44).

The Debate Over "Viability"

If Canada is not trading unfairly, then, what is the basis of the claim made at the beginning of this essay that protectionist measures have a better chance of being imposed against uranium than any other energy commodity? The basis is a national-security argument that finds legislative support in a section of the Atomic Energy Act that ostensibly requires the Secretary of Energy to impose import restrictions should he deem the U.S. uranium industry to be no longer "viable." This is not the only statutory mechanism upon which the protectionist advocates pin their hopes, but it is one of the more useful for their purposes. It has been likened to getting into a street brawl armed with a gun instead of a knife. While this may be an apt comparison, it bears noting that the statutory "gun" in question does not pack the power it had two decades ago, for reasons discussed below; today, it is more like a derringer than a Luger. Still, even pocket pistols can be deadly, and to inderstand the significance of the current threat to Canadian uranium exports, it is necessary to review some salient

aspects of recent Canadian-American uranium trade.

Canadian uranium producers once battened on subsidies from an American government desirous of developing uranium productive capacity, both in the U.S. itself and in secure foreign countries. Prior to the development of a commercial market for nuclear energy, the American--and, to a lesser extent, British--nuclear weapons programs constituted virtually the sole market for uranium producers in the Western world. At the start of the 1960s, the U.S. Atomic Energy Commission was in the process of phasing out its uranium purchase contracts, a move that hit U.S. producers hard, and nearly devastated Canadian ones. Even worse, the AEC announced in 1964 that, as of 1966, it would no longer enrich foreign U_3O_8 for use in commercial markets in the United States, effectively closing to foreign producers some 70% of the world market for non-military consumption of uranium (Greenwood and Streeter, 1980:324-26).

This total embargo was in place for a decade, and was only completely phased out in 1983. It found its statutory authority in a 1964 amendment to the Atomic Energy Act of 1954: Section 161(V). It is primarily this that the protectionist forces have in mind when they wax enthusiastic over their chances of forcing the hand of an administration they consider to be rife with free-trade ideologues. Simply put, sec. 161(v) mandates that the domestic uranium industry be kept "viable," if need be by the imposition of an enrichment embargo on foreign U_3O_8 (U.S. Department of Energy, 1983:3-4). According to another section of the Atomic Energy Act of 1954, Section 170(B), as amended by Section 23(B) of the Nuclear Regulatory Commission Authorization Act of January 1983, the Secretary of Energy must make an annual viability assessment of the U.S. uranium industry for each of the ten years from 1983 through 1992.

To date, two such assessments have been made: the first, that for 1983, was issued on the last day of 1984, and was greeted with astonishment and outrage by the domestic producers and their supporters, who could not understand how the secretary could find the struggling U.S. industry to be viable. The second, made in September 1985, deemed the domestic industry to be "non-viable," but, significantly, has yet to be accompanied by any of the measures the uranium protectionists had been expecting to attend a finding of non-viability. Nor is it certain that any such measures (e.g., a mandatory embargo on enrichment of foreign uranium for domestic end use) will be imposed.

Legal opinion is divided over whether a non-viability finding should necessarily result in an embargo on enrichment services. But even if such were the case, it seems obvious that such an embargo today no longer carries the threat to foreign producers that it did in 1966, when the U.S. had a virtual monopoly on world enrichment services. There is now an overcapacity of enrichment capacity available not only from the facilities operated by the U.S. Department of Energy, but also from those run by two Western European enrichers (Urenco and Eurodif) and one Soviet enricher (Techsnabexport) (Neff, 1984:19). The American share of global capacity, in the range of 30 to 40%, has eroded dramatically during the past decade, which necessarily renders less damaging any embargo on enrichment services. Indeed, in large measure because of the near-certainty that an enrichment embargo could today easily be circumvented by foreign producers (and domestic utilities), the Department of Energy has argued against such an embargo on the grounds that it would not only not help domestic uranium producers, but it would be potentially ruinous to the hard-pressed government-owned enrichment facilities in the United States.

To accord real protection, any restrictionist measures imposed under sec.

161(V) would have to be supplemented by other arrangements. Are there provisions for such arrangements on the U.S. statutes? Yes; there are at least two trade laws that can be invoked to stem the tide of uranium imports and both are linked to the above-mentioned sec. 23(B) of the Nuclear Regulatory Commission Authorization Act of January 1983. This Act not only mandated an annual viability assessment for ten years; it also enjoined the administration to monitor uranium-import levels, and to take action in the event imports appeared to be threatening the domestic industry. It has two relevant features: one provision calls on the USTR to ask the ITC to initiate an investigation under Section 201 of the Trade Act of 1974 in the event the Secretary of Energy finds that imports are either a "substantial cause of serious injury" or a "threat thereof"; another provision stipulates that should current import contracts or options on foreign uranium constitute an amount greater than 37.5% of domestic requirements for two years in a row, or should the Secretary of Energy believe that import-contract levels might impair national security, then the latter must ask the Secretary of Commerce to carry out an investigation of the national-security impact of uranium imports under Section 232 of the Trade Expansion Act of 1962 (U.S. Department of Energy, 1984a:3).

Sec. 201 of the Trade Act of 1974, sometimes called the "escape clause," empowers the President to impose restrictions on imports if the ITC advises that he should. Unlike antidumping or countervailing duty investigations, sec. 201 determinations do not hinge on whether unfair-trading practices are responsible for increased imports; it suffices that imports alone be found to constitute a "substantial cause of serious injury, or the threat thereof." Should the ITC so find, it may recommend, and the President may impose, import-relief measures, usually involving either tariffs or quotas, or both. The import relief is

intended to be temporary (in no case to exceed eight years), so as to encourage the domestic industry's "adjustment" to international competition.

To date, the domestic uranium industry has not chosen to file a petition for import relief under sec. 201, mainly because of the high costs (estimated to be between $250,000 and $500,000) associated with building a legal case, coupled with the relatively low probability that the effort will lead to import relief; for only 20% or so of ITC investigations culminate in import-relief measures other than trade-adjustment assistance. The Uranium Producers of America are hopeful that a "non-viability" finding would automatically trigger a USTR-initiated 201 investigation, which would mean that the government and not the industry would bear the brunt of the legal and other costs associated with the process. There is, however, some dispute concerning the question of whether a non-viability finding must automatically lead to a 201 investigation. Recently, the USTR advised against a 201 investigation, on the grounds that imports cannot be shown to fulfill the injury-inducing criterion cited in the above paragraph.

Sec. 232 of the Trade Expansion Act of 1962 (as amended by sec. 127 of the Trade Act of 1974 and the Reorganization Plan of 1979) is a seldom-used device that allows the President to impose restrictions on imports that are held to impair the national security. This has been employed at various times to impose quotas and fees on imports of crude oil and products. Should the Secretary of Commerce judge that imports are a danger to security, he must so advise the President, who may in turn take measures to "adjust" import levels (U.S. Congress, 1984:89).

National-Security Implications of Uranium Imports

So far, I have been arguing that Canadian uranium exports to the U.S., despite the UF_6-conversion issue, seem unlikely to be restricted solely on the basis of unfair trading. There is another potential danger to Canadian export interests, however, and it inheres in the area of national security. Analysts often have little patience with advocacies for protectionism based on security grounds; these are typically seen to be at best self-serving pleas, at worst dangerous vestiges of an outmoded mercantilism. In many instances, such criticisms are justified, for just as patriotism has been considered (at least by Dr. Johnson) the last refuge of the scoundrel, so national-security rhetoric is held to constitute the final rampart of the protectionist. Nor is casuistry the only charge that can be leveled against those who seek import relief in the name of security; often such quests are derided not because they are tainted by duplicity, but rather because they are beclouded by ambiguity, due primarily to the fact that the concept of "national security" is so broad that it can be made to mean practically anything (Buzan, 1983).

It is no doubt prudent for analysts to treat protectionist arguments premised on national-security considerations with a certain amount of skepticism. Still, it would be foolish to imagine that the national-security case for import relief is everywhere fallacious, and this for two related reasons. The first has to do with the debate over proper government policy in respect of access to "strategic minerals" (Haglund, 1984a:146-52). It is commonly conceded that industrialized states depend upon having reasonably secure access to essential raw materials (minerals above all) if they are to maintain their economic and ultimately their military vitality. Although the exact nature of the relationship between mineral availability and national security is open to some dispute, few would argue that

the former is irrelevant to the latter (Haglund, 1982:445-71). Instead, students of international politics tend to argue that while dependence (or interdependence) can and does bring economic gain, it often does so at a high political cost; states, in this view, respond if they can with "autarchic strivings toward greater self-sufficiency" (Waltz, 1979:106).

Autarchic "strivings" are not limited to the domain of minerals, however, and this brings us to the second reason for taking seriously protectionist arguments premised on security considerations. This second aspect of the national-security question is more relevant perhaps to downstream stages of the fabrication process than to minerals issues per se, but it is nonetheless worth introducing here, particularly in light of the above-mentioned UF_6-conversion issue. There is a growing concern in the U.S. that the country's "industrial base" is eroding, whether as a result of the natural workings of interdependence and liberalized trade, or because of the spread of "unfair" trading. Though most economists would adjure an attentiveness to the principle of comparative advantage, on the not-unreasonable grounds that high per capita income is the truest measure of national (and international) economic well-being, national-security analysts do worry about the strategic implications of interdependence. One such analyst, Paul Seabury, dismisses as beside the point much of the current American debate between "neomercantilists" and "free-traders." According to Seabury, "the necessity for a U.S. industrial policy arises not from domestic economic considerations -- however large these may currently loom -- but rather from strategic-military concerns. As the only genuine guarantor of security for both itself and the Free World as a whole, the United States simply cannot afford to allow its industrial base to wither away" (Seabury, 1983:6). While it would be incorrect to suppose that every trade issue

is suffused with genuine security implications, it would be unwise not to recognize the increasing appeal of arguments linked to the goal of preserving what is sometimes referred to as the "defence industrial base" (U.S.Congress, 1980).

It is yet another irony of bilateral uranium trade that there should be mounting security concern about imports of Canadian uranium. For several decades, Canadian source of supply has been regarded, in most minerals, as being practically tantamount to U.S. domestic supply, insofar as emergency planning and industrial preparedness questions are concerned (Haglund, 1984b:5-31). What, then, accounts for the recent disquiet over the reliability of Canada as a uranium supplier? The disquiet has a double root, which in turn is related to the dual "strategic" nature of uranium, namely that it is both an important energy mineral, and an indispensable military one. Admittedly, uranium does not constitute a major share of total energy consumed in the Western industrialized countries: at the start of this decade, OECD memebers were getting less than 4% of their total energy from nuclear power-plants (as against nearly half their energy from oil), and while the proportional OECD consumption of uranium is expected to double by 2000, it will continue to lag far behind the fossil fuels (Maull, 1984:50-51). Nevertheless, there is a case to be made for the economic importance of nucler fuel, based on its role as a significant source of electricity generation in several parts of the world. Ontario, for example, now generates more than a third of its electricity in nuclear power plants, and by 2000 nuclear power is projected to account for more than 60% of the province's electricity. Neither the overall Canadian nor the American electricity-generating patterns reflect such a heavy reliance on nuclear power; at present each country counts on nuclear power for slightly less

than 13% of its electricity output (Whillans, 1985:63.8-63.9, 63.16).

Still, the role of uranium in U.S. electricity generation should not be minimized. At the moment, uranium is second only to coal as a domestic fuel for the generation of electricity, and by 2000 is expected to account for 20% of America's supply of electricity (Luke, 1985:2). It is in this context, much more so than in that of weapons building, that one often hears the domestic protectionist forces expressing their misgivings about uranium imports on the basis of security considerations. The argument is advanced that should U.S. uranium producers be put out of business or reduced to insignificance there would be nothing to check future "price gouging" on the part of supplier countries such as Canada, and this would be extremely damaging to U.S. economic security. In this regard, one often hears references made to Canada's participation in the uranium cartel of the early 1970s, with the clear implication being that it cannot be counted on to refrain from exploiting its "leverage" over helpless American consumers.

In addition to economic-security arguments made in support of domestic production, there is a military-security argument being made against excessive uranium-import levels. It is not so much that the U.S. worries about fissionable material for nuclear warheads; there are thousands of warheads already in the American arsenal (many fabricated originally with Canadian uranium), and though they might have to be reconstructed from time to time, it is not because their plutonium content has dissipated. By any reckoning, it has an extremely long "shelf" life. Moreover, the U.S. has massive stockpiles of uranium, estimated to be in the range of 150 million pounds of U_3O_8--stockpiles that have enabled the U.S. government to abstain from any uranium purchases, for any purposes, since 1970. In addition to the stocks of U_3O_8, the enrichment

facilities operated by the DOE also possess immense holdings of depleted uranium ("depleted" in the sense that its U-235 content is less than that found in natural uranium); it is possible that in future the depleted UF_6 tailings might be recycled through the DOE's gaseous-diffusion plants in place of fresh natural-uranium feed. This last possibility has recently occasioned some anxiety in Canada that Canadian uranium might somehow be getting applied to military purposes, in violation of the country's tough safeguards policy governing nuclear exports, as well as of a bilateral treaty with the U.S. forbidding non-peaceful applications of Canadian uranium by the U.S. There is some basis to these fears, for conventional weaponry (in the event, armour-piercing projectiles) has been manufactured from depleted uranium, some of it of necessity Canadian.

What does stimulate some misgivings in Washington, especially among those agencies identified earlier in this paper as being committed to the principle of free trade, is the possibility that the U.S. Navy may not in future be able to obtain a secure source of fuel for its nuclear-powered vessels, in the event of further erosion of domestic productive capacity. For the moment, government stocks continue to provide for the fuel needs of the nuclear navy; but there is dispute in Washington over how much longer the stockpile disposals can continue. It is far from easy to arrive at an accurate figure for such a sensitive matter as the Navy's consumption of nuclear fuel. Officials at the Department of Energy estimate that current annual military (mostly naval) demand in the U.S. is about 2 million pounds of U_3O_8; however, sources in the uranium industry challenge this estimate, and argue instead that military consumption averages between 5 and 6 million pounds a year. They also maintain that the stockpile will be exhausted sometime during the 1990s. Although the DOE officials do not foresee such a rapid depletion of stocks, they too evince concern about

Canadian policy regarding the export of uranium for military purposes.

Conclusion: Policy Options for Meeting the Protectionist Challenge

The dramatic increase in Canadian uranium exports to the U.S., coupled with the anticipation that imports will continue to capture a larger share of the American market, has led to an outburst of protectionist rhetoric, and threatens to lead to the re-imposition of import restrictions in uranium. For the most part (the important issue of UF_6 conversion aside), I have been minimizing the significance of the "unfair-trading" charges being brought against Canadian export interests. Instead, I have stressed that there are statutes on American books that could permit controls of uranium imports, sometimes in the interests of "national security." Not only this, but there are bills pending that would strengthen the current trade-restricting powers of U.S. law, in uranium as well as in other commodities. In this concluding section, I will seek answers to the question, Are there any obvious policy choices open to Canada that might serve to defuse the protectionist challenge? Though there can be no guarantee of their success, it does seem that a few policy options do exist that could deflect protectionist pressure. These options range from making a more concerted effort in Washington both to monitor and lobby Congress and relevant executive branch agencies to, at the more "pro-active" end of the spectrum, actually making changes in certain Canadian policies.

As far as monitoring is concerned, it is obvious that one of the compelling needs at the Canadian embassy in Washington is for more staff to assist the few beleaguered commercial officers currently following American trade policy. Given the proliferation during the past few years in U.S. trade-policy issues and litigation, it is unfortunate that harried commodity officers are not adequately

backed up by support staff. To be sure, adding more civil servants, especially in such a high-cost setting as the American capital, contradicts the current mood of restraint in Ottawa. Nevertheless, the stakes are sufficiently high to warrant such expenditures, and one would think that the investment would easily pay for itself, if there is any truth in the "ounce-of-prevention, pound-of-cure" saw.

Nor is increased monitoring of U.S. issues anything more than a beginning. With an expanded capability to follow more trade matters, one would expect an increase in Canadian attempts to achieve what one scholar of international politics has characterized as "informal access" within the U.S. capital (Scott, 1982). A variant of informal penetration might be called "lobbying," and it seems that this too is an activity that can profitably be increased, at both the federal and provincial levels. It is important not to expect too much to come from lobbying efforts, and it is also important that such efforts not be restricted simply to Capitol Hill (Doran and Sokolsky, 1985), for there are executive branch agencies whose information on current Canadian uranium developments is surprisingly incomplete. This is not a minor point, for one often hears objections to "Canadian" policies being made that are simply not rooted in fact. Moreover, there are matters on which Saskatchewan uranium interests are clearly pitted against those in Ontario, and it would behoove the former to do that which the Embassy simply is incapable (for good reasons) of doing for them, namely defending their provincial interests. It may be surprising north of the border to hear it expressed in these terms, but in Washington the uranium lobby has been fairly effective in having the domestic industry depicted as being victimized by the Canadian "monolith." However soothing even a temporary reversal of the "elephant-and-mouse" metaphor might be to the national ego, it does not help the national interest, or at least the uranium business, for such

perceptions to go unchallenged.

This brings me to the final, and most contentious, set of public-policy questions: Are there any Canadian policies that should be changed in an effort to defuse protectionism? I have already discounted most of the unfair-trading charges, save for that of UF_6 conversion. Is there anything Canada should do to spike protectionist guns on this issue? Two possible options come to mind. One is simply to continue, but on an increasing basis, the current policy of granting exemptions from the further-processing requirement. Despite the requirement, some Canadian U_3O_8 continues to be converted to UF_6 in the U.S. This is not something that pleases Eldorado Nuclear, nor is it necessarily beneficial to Ontario, but it does arguably further the interests of Saskatchewan. Another option would be to proceed with the much-mooted "privatization" of Eldorado. This would presumably have to be accompanied by a revision of the UF_6-conversion policy, else how would it be expected to mollify U.S. protectionists, or for that matter the current administration? But removing the requirement that Canadian U_3O_8 be upgraded by Eldorado would hardly increase the attractiveness of the crown corporation to a private-sector purchaser; indeed, it might constitute the biggest impediment to privatization. On the other hand, it may be that the refining/conversion facilities at Blind River and Port Hope are so modern that they would be able to more than hold their own against competition from U.S. converters; if this were the case, then with or without the privatization of Eldorado, it seems the further-processing policy could be scrapped on the simple ground of redundancy. This is a highly complex matter, but it is clear that the further-processing question will not go away, and must be addressed; indeed, Washington has recently notified Ottawa that it would be taking Canada to the GATT over this issue.

One other matter that will not go away is the national-security consideration introduced above: Can the U.S. Navy count on being able to use Canadian uranium to power its vessels, in light of current policy that seemingly prevents this? If it can be said that the further-processing issue is controversial, it must be said that it is commonplace when contrasted with the question of Canadian uranium-export policy, based as it is on profound concerns about the potential of Canada's uranium being put to non-peaceful purposes, and thereby endangering both international security and Canadian national security (Keeley, 1980:614-27; Moher, 1985). It would be in neither Canada's nor the United States' interest for Canada to abandon the safeguards that it applies for the purpose of stanching the proliferation of nuclear weapons. However, it may be possible to achieve some policy clarification on the question of whether Canadian uranium could be used to propel U.S. ships. In the long term, this is possibly the single most important policy matter in respect of Canadian uranium exports to the U.S., and must be raised. It will certainly be a politically contentious question, no matter how it is resolved. At the very least, those in favour of allowing the use of Canadian uranium for propulsion purposes can argue that it makes as little sense to place an export ban on Canadian U_3O_8 as it would to embargo Canadian fuel-oil shipments to the U.S., for both energy commodities are used by the American Navy.

Notes

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[1]American utilities, and many other utilities worldwide, require for their light-water reactors "enriched" uranium to sustain a nuclear reaction. This means that the relative distribution of isotopes in natural uranium must be altered so that the proportion of "fissile" U-235 is increased from its naturally occurring 0.711% (by weight) to about 3%; by the same token, the share of U-238 is reduced to approximately 97% of the weight of the enriched product.

[2]One metric tonne of natural uranium (written as 1 tU) is equivalent to 1.3 short tons of uranium oxide (U_3O_8); put differently, 1 short ton of U_3O_8 equals 0.769 tU.

[3]Countervailing duties are given statutory authority by the Tariff Act of 1930, as supplemented by the Trade Agreements Act of 1979 and amended by the Trade and Tariff Act of 1984.

[4]The term "spot market" is a misnomer; what people actually refer to when they use the term is the Nuclear Exchange Corporation's (Nuexco) "exchange value," i.e., this leading broker's estimate of the price at which transactions for immediate delivery could have been made as of the last day of the month.

[5]Though privately the Kerr-McGee interests express great concern about the future supply of U_3O_8 to their Oklahoma conversion facility, publicly the corporation claims to have "a multiyear backlog of conversion work to satisfy more than 30 contracts with customers worldwide." 1984 Kerr-McGee Corporation Annual Report, p. 26.

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