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**Competition Policy Review Panel**  
**Research Paper Summary**

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**Title: Uranium: Controls on Foreign Ownership and National Security**

**Subjects Addressed:**

- Uranium mining

*Historical Roots of Controls on Uranium Production and Trade:*

The research notes that trade restrictions on uranium date from the Second World War and concerns about the ramifications of atomic proliferation lead to the insertion into the GATT of a clause exempting trade restrictions designed to protect a state's essential security interests – fissile material is specifically mentioned as part of this general exemption for security and defence related trade. The research further revealed that following the Second World War the main use of uranium was in weapons production, but since the 1970s the trend has been towards power-generation and other peaceful uses; today almost all uranium produced is for peaceful purposes. The high capital costs of nuclear power stations and the relatively low fuel-cost of nuclear power generation make demand for uranium more predictable than other fuels.

*The Canadian Regime for Uranium Production and Trade:*

Canada allows foreign-ownership of uranium ore bodies up to 49%, however the research also found that one of the four uranium mines operating in Canada (as well as all three mining sites under development) are majority owned by foreign enterprises – mainly French and Japanese. These exemptions to the general rules governing uranium extraction are based on the determination of disproportionate benefits and low risk from these investments. Canada allows exemptions to all investment limits, subject to cabinet approval, where it can be demonstrated that no Canadian investor can be found.

In Canada, the provinces are responsible for regulating the exploitation of mineral resources in their territories, while the Federal government establishes the national trade and investment regime. In the territories the Federal government is also ultimately responsible for the regulation of mining activity, but this responsibility has been exceptionally devolved to Yukon territorial authorities. Internationally, Canada is a signatory to the Nuclear Non-Proliferation Treaty, the IAEA additional protocol and is a member of the Nuclear Suppliers' Group. As such it requires all customers to have concluded a bilateral safeguards agreement with Canada before trade in fissile material is allowed, and this must include assurances on peaceful use only, fall-back safeguards, retransfer, and physical protection of the material.

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*The Australian Regime for Uranium Production and Trade:*

Australia is estimated to have 36% of global uranium reserves, but only accounts for 22% of world uranium exports (Australia does not use nuclear energy and operates only one research reactor). Total reserves will increase over time as improvements in extraction technology increasingly make hitherto marginal deposits economical to harvest. Compared to the situation in Australia, Canada is the largest producer of uranium in the world, while the USA is the world's largest consumer. Kazakhstan has the third largest commercially viable deposits of uranium

The Australian state governments are responsible for oversight and regulation of mining in their respective territories (and are also the legal trustees of all minerals within their borders). There appeared to be prospects of widespread mining of uranium in Australia until 1984, when a new Labour government implemented a 'three-mines' policy whereby only three producing mines at any one time would be granted export licences. The 'three-mines' policy has been eliminated (as of 1996) but exploration for further uranium deposits in Australia has been minimal since 1984, due to widely held, public disapproval of uranium mining and the strong opposition of many state premiers to new uranium mines in their territories. New South Wales and Victoria ban all uranium mining related activity, while Tasmania has only recently legalized exploration.

In keeping with this concern about uranium, Australian law has traditionally required government approval of foreign ownership and operations of uranium and plutonium extraction and processing facilities, as well as the operation of nuclear reactors under the *Foreign Acquisitions and Takeovers Act* of 1975. In 1996, the Prime Minister announced that federal government controls of ownership of uranium mining operations would be reduced to a level equivalent to those applied to all mining projects in Australia, i.e., uranium mining would no longer be a "proscribed sensitive sector". Nonetheless, uranium mining is listed as a proscribed sensitive sector in a schedule of the US/Australian free trade agreement that entered into force 1 January 2005. (The research was, however, unable to obtain clarification concerning the actual policy being followed. Presumably uranium mining is, once again, a proscribed sensitive sector to all potential foreign owners, not only vis-à-vis Americans.) Australian authorities did permit the takeover, in March 2005, of an operating uranium mine by a British-controlled Australian mining corporation.

Australia allows exports of uranium only to those countries it has concluded a safe-guards arrangement with; a condition of such an agreement with Australia is being ratification of the Nuclear Non-Proliferation Treaty, adherence to the IAEA additional protocol on fissile material. In recent years, Australia has undertaken negotiations to secure exports with Mexico, Indonesia, India, Taiwan, China and Russia. The research notes that negotiations with the

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latter four countries were highly controversial, and that proposed exports to India (via the USA) were cancelled following the recent change of government.

#### *The US Regime for Uranium Production and Trade*

The research indicates that any person to be engaged in the extraction, transport, or use of fissile material in the United States must first obtain a licence from the Atomic Energy Commission and that such a licence will only be given if the AEC can be satisfied that it would not be inimical to the common defence or public health and safety. Foreign persons, governments and corporations are specifically prohibited from obtaining licences; and this encompasses domestic corporations substantially under the control of foreign agents. Individuals may, however, obtain licences specifically for medical and/or research purposes.

To trade internationally, US companies require an export licence from the Nuclear Regulatory Commission, and this will only be issued for trading between the United States and jurisdictions with which it has signed a bilateral agreement on peaceful nuclear co-operation. The United States *Atomic Energy Act* of 1954 has set the standard for international nuclear commerce. It mandates that a bilateral nuclear co-operation agreement must be in force between the USA and any country wishing to import nuclear material, hardware or technology/information. The *Nuclear Non-Proliferation Act* of 1978 strengthened the previous regime by instituting a requirement that all countries wishing to trade in nuclear technology and material with the United States had to be party to the IAEA safeguards regime

#### *The situation in the Former USSR*

##### *Russia*

The research found that Russia designates uranium production and processing, as well as all aspects of the nuclear industry, to be one of forty-two 'strategic sectors' of the economy and any foreign investment over 50% in a project requires the review and approval of a commission made up of economic and security officials. Foreign government/SOE investment of 25% and above is also subject to this review process. Russia has announced that it would like to see foreign participation in energy projects not exceed 10%. Nonetheless, Russia has recently opened its uranium mining sector to foreign investment, and Japanese firms are currently developing a mine in eastern Siberia to supply Japanese energy needs and expect to begin production in 2009.

Russia has been an active supplier of nuclear fuel to the world, but since 1990 this has mainly come from decommissioned weapons-grade material that has been converted in a joint-effort with the USA to a grade suitable for civilian uses. Russia is expected soon to be a net importer of uranium. However, Russian law allows for the importation of raw uranium, enrichment and re-exportation without attaching a Russian component to the obligated nuclear material (i.e. it would remain obligated to the country that produced the ore).

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*Other Soviet Successor States*

The research notes that in Kazakhstan and Uzbekistan all uranium mining and processing is carried-out by state-owned companies, though in Kazakhstan joint ventures with foreign firms are increasingly common, as Kazakhstan seeks to move up the production chain with the ultimate goal of supplying thirty percent of world requirements of nuclear fuel. In Ukraine, ministerial approval is required before any investment in uranium mining and/or processing can take place (by a foreign or domestic firm).