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Standing Committee on National Defence

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• (1100)

[English]

The Chair (Charles Sousa (Mississauga—Lakeshore, Lib.)): I call this meeting to order.

Good morning, everybody. Welcome to meeting number 24 of the House of Commons Standing Committee on National Defence.

Pursuant to Standing Order 108(2) and the motion adopted by the committee on Tuesday, September 16, 2025, the committee is meeting to begin its consideration of the nexus between national defence, national security and the critical minerals sector.

Today's meeting is taking place in hybrid format, pursuant to the Standing Orders. Members are attending in person and remotely using the Zoom application.

Before we begin, I ask participants to consult the guidelines on the table. These measures are to help prevent audio feedback incidents and to protect the health and safety of our interpreters.

I would like to remind witnesses and members to please wait until I recognize you by name before speaking. If you wish to speak, please raise your hand, and for those on Zoom, please use the “raise hand” function, and the clerk and I will manage the speaking order as best we can. For interpretation, use your earpiece and select the appropriate channel. All comments should be addressed through the chair.

I'd like to welcome our witnesses: Dr. Michael Byers, professor, via video conferencing; Christopher Hernandez-Roy, deputy director and senior fellow, Americas program, Center for Strategic and International Studies; and Elizabeth Steyn, associate dean of graduate studies, Faculty of Law, at the University of Calgary.

You will each have five minutes to make your opening statement.

We'll start with Dr. Byers.

Dr. Michael Byers (Professor, University of British Columbia, As an Individual): Thank you very much.

[Translation]

Good morning, everyone.

[English]

I will make my comments today in English but I am happy to take questions in French.

When I received this invitation, I couldn't help but wonder why you had chosen me. I think the answer is that I have been working

on issues of Arctic security and Arctic sovereignty for the last 20 years. Twenty years ago, I became very involved in an issue of national security and foreign investment.

Some of you will remember a significant interest of public policy in 2007 and 2008, when Canada's largest space company, MacDonald, Dettwiler and Associates—now known as MDA—wished to sell its space division to a large American company, ATK. The reason it became an issue of national security was that MacDonald, Dettwiler and Associates had a synthetic aperture radar satellite, RADARSAT-2, that had been built precisely to provide surveillance of Canada's Arctic waters and to measure sea ice and to essentially fulfill an Arctic sovereignty and security role, and had done so with half a billion dollars of Canadian government pre-purchased imagery.

After an extensive investigation—I believe I testified before three parliamentary committees on that issue, and others, of course, weighed in—then industry minister, the late Jim Prentice, invoked the Investment Canada Act for the first time to block the purchase of a Canadian company by a foreign company. He did so under what was called the net benefit test, because the Investment Canada Act at that time did not include a national security test. I, and others, recommended that the act be amended to include a national security test and it was. It has been amended again and I believe the government is currently in the process of adopting regulations that would provide even more content to that issue.

That's why I think I'm here. I'm not a specialist in national law. I am a specialist in international law and I can tell you that international law allows for a very broad exception for national security purposes. Blocking a sale for national security purposes does not raise issues of international law. It simply goes to the issue of the domestic legislation.

Again, I spend a lot of time looking at Arctic security issues, including with regard to China. I think it's important with regard to Chinese interest in Canadian natural resources to take a deep breath and not get overly excited. We export a lot of bitumen to China. We export nickel to China. In fact, there's a Chinese-owned company that has a mine in northern Quebec that ships nickel to China and the Prime Minister was recently in Beijing seeking to expand trading relationships with that country.

I'm not naive. I think one needs to make sure that Chinese companies are not accessing certain critical minerals in Canada. I'm thinking here of rare earth elements in particular, but I think it's important to focus on the specific minerals and to not get too excited and regard all trade with China or all investment with China on what might be broadly defined as critical minerals as necessarily a bad thing.

I also have spent a lot of time on Canada-U.S. relations. I was, for five years, a professor of international law at Duke University in North Carolina. Our relationship with the United States at the moment is unpredictable, to say the least, and requires that we not lock ourselves into any new constraints at this moment. Here I'm speaking to the fact that the Trump administration has indicated a desire to negotiate a bilateral agreement with Canada on critical minerals.

• (1105)

I think that Prime Minister Carney is right to point out that this issue should be deferred as part of the larger Canada-U.S.-Mexico trade agreement renegotiations. You don't give away a strong card before the poker game starts.

I'm going to close by simply saying that I am concerned by a decision that was made in 2020 to enter into a Canada-U.S. joint action plan on critical minerals. It probably was a wise decision in 2020. Under that plan, the Canadian government and the U.S. Department of Defense jointly acquired equity interests in, I believe, six Canadian mining companies so far, including Canada's only mine for rare earth elements, in the Yukon. I'm becoming concerned that this could be a problem, at least if it were to allow the United States Department of Defense to secure critical minerals, and specifically rare earth elements, in a time of shortage in Canada.

Again, I'm not looking for any governmental decision on this right now. It's proper that it's part of the CUSMA negotiations, but we need to be alert to maintain our sovereignty over rare earth elements and certain other key critical minerals.

To bring it back to the beginning of my comments, the last thing I will say on the United States is that back in 2008, the sale that Jim Prentice blocked was a sale to a U.S. company, so we have said no to purchases from the United States before for national security reasons. In worst-case scenarios, we should be prepared to do so again.

Thank you very much.

• (1110)

The Chair: Thank you, Dr. Byers. We do appreciate and value your experience and your participation here, so thank you.

It's over to you, Christopher Hernandez-Roy. You have up to five minutes.

Christopher Hernandez-Roy (Deputy Director and Senior Fellow, Americas Program, Center for Strategic and International Studies): Thanks very much.

Chairman Sousa, Vice-Chair Bezan, Vice-Chair Savard-Tremblay and distinguished members of the committee, I'm very pleased to share my views with you today.

My employer, the Center for Strategic and International Studies, or CSIS, does not take policy positions, so the remarks and opinions that I express today are entirely my own and don't necessarily reflect CSIS.

Just like coal and steel production in the 19th century, and perhaps oil in the 20th century, critical minerals are now keystones of national capabilities, alongside chip fabrication, aerospace and advanced manufacturing, information technology, artificial intelligence and energy.

The relationship between mining and defence is being reshaped by a fundamental shift in how critical minerals are perceived and governed. What was once largely driven by consumer product and energy transition objectives is now increasingly framed through a national security and industrial strategy lens. This shift is unfolding against a backdrop of heavy dependence on non-trusted or adversarial jurisdictions for mining, processing and refining and is exposing defence industries to geopolitical risk, trade disruptions and coercive leverage.

In response, Canada and allied governments are moving to re-anchor mineral supply chains domestically and within trusted networks. Bilateral and multilateral instruments and agreements are increasingly explicit about strengthening the resilience of supply chains and ensuring a secure sourcing of critical minerals essential for defence, rather than for a regular consumer market or climate goals alone.

Canada can position itself as a cornerstone of national security and defence-critical mineral supply for Canada and for its allies. Canada has reserves of all 12 of the minerals that NATO identifies as essential for defence manufacturing and is in active production of most of them, in addition to other minerals on the U.S. Department of Defense's critical minerals list and on the EU's critical minerals list as well.

Trade frictions between the United States and Canada have accelerated a push to diversify defence-related mineral exports, deepening ties with leading western economies through the G7 critical minerals action plan and with Europe through the security and defence partnership and the SAFE initiative, as well as aligning more closely with NATO's rearmament agenda.

In this context, minerals themselves could become a form of defence currency, an alternative pathway for Canada to meet readiness and burden-sharing objectives, in particular the 1.5% above the 3.5% NATO hard-core commitments to defence.

On the demand side, while regular consumer demand still drives markets, defence is becoming an increasingly important market signal, but one that is not always clear in terms of which specific minerals companies will require, and in what volumes and on what timelines. Unlike EV or battery markets, defence-driven demand is mediated through classified planning, procurement systems and shifting threat assessments.

[*Translation*]

The alignment of policies and regulatory frameworks remains another central challenge in the link between mining and defence. Defence-procurement authorities, industrial-policy agencies and mineral-regulatory bodies often operate under different mandates, timelines and levels of risk. Even when there is political consensus on the need to prioritize defence-critical minerals, this doesn't automatically translate into faster permitting processes or clearer regulatory decisions.

Recent initiatives, including those in the Building Canada Act and led by the Major Projects Office, which aim to streamline environmental assessments, centralize approvals for major projects and accelerate development deemed to be in the national interest, reflect an effort to reconcile the urgency identified by the critical-minerals industry with the integrity of the regulatory framework.

• (1115)

[*English*]

Financing constraints sit at the centre of the mining-defence relationship. Defence-critical minerals projects, particularly in processing and refining, are capital-intensive and also involve technology and scale-up risk.

I have argued in the past that Canada should establish its own version of a U.S. DPA Title III to co-invest in defence critical minerals, signalling government commitment and encouraging private capital. Perhaps the new Canadian critical minerals sovereign fund will achieve some of these objectives if it focuses some of its investments on defence-critical minerals.

Processing and midstream capacity represents one of the most acute bottlenecks. Investments in rare earth processing, magnet manufacturing and recycling illustrate both the opportunity and the difficulty of building mainstream capacity fast enough to meet defence timelines and the need to quickly pivot away from adversarial sources.

Progress is being made with the Saskatchewan Research Council's rare earth facility, Rio Tinto's scandium production plant in Quebec and Ucore Rare Metals' Kingston facility, for example.

For miners, all of these dynamics force strategic choices. Some will remain focused on supplying feedstock, while others may pursue deeper integration as strategic partners to processors, defence companies or governments. Debates over strategic stockpiles, direct public equity and alignment of mineral production with defence commitments illustrate how miners are increasingly operating within a geopolitical, as well as a commercial, calculus.

Taken together, these dynamics highlight a central tension: Defence-driven strategic intent is accelerating, but the institutional, commercial and industrial mechanisms needed to translate that in-

tent into predictable demand, bankable projects and resilient supply chains are still catching up.

Thank you very much.

The Chair: Thank you.

Ms. Steyn, we'll go over to you for five minutes.

Dr. Elizabeth Steyn (Associate Dean, Graduate Studies, Faculty of Law, University of Calgary): Honourable Chair, vice-chairs and members of the committee, thank you for the invitation to appear before you today on this important study examining the nexus between national defence, national security and Canada's critical mineral sector.

I am a law professor at the University of Calgary, where I teach a course in critical minerals, regulatory frameworks and geopolitics. I have specialized in this area for the past six years. I am also a fellow at the Centre for Military, Security and Strategic Studies at the University of Calgary.

At the outset, I would like to make 10 recommendations.

First is that the Canadian definition of "critical minerals" be revised to bring it in line with our changing geopolitical realities. Our current definition states that we must have the geological potential to produce a mineral for it to be considered a critical mineral in Canada. We need to focus on minerals that are critical for Canada. By that, I mean minerals that are critical to the energy transition, the digital transition, critical infrastructure, agriculture, aerospace, advanced manufacturing, and, most importantly, national security and defence.

Second is that a clear and transparent methodology for the identification of critical minerals be designed accordingly, and that it be revised biannually in accordance with the latest scientific advances.

Third is that the 2021 Canadian critical minerals list be revised in consequence.

Fourth is that Canada make haste with the establishment of the critical minerals stockpile that was announced in budget 2025. I will note here that Eisenhower set the golden standard of a stockpile that can withstand a five-year war effort.

Fifth is that a healthy portion of Canada's increased defence budget should be set aside for feedstocks in the form of critical minerals, as well as the securing of critical minerals supply chains: production, processing, manufacturing and supply.

Sixth is that as a country we exercise vigilance when it comes not only to Chinese investments but also to those by the U.S. Department of Defense, or Department of War, particularly when they come tied to 100% offtake agreements such as we have recently seen.

Seventh, our priority as a country should be first to secure our own needs and then to provide minerals to our NATO allies. By “our NATO allies”, I’m referring predominantly to CETA, such as with the recent agreement we entered into with Germany.

Eighth, we should look to the global south for alliances when it comes to securing minerals we do not have, notably with South Africa, Namibia and Kazakhstan.

Ninth, there is a careful balance to be trod between being a useful ally to the U.S. and putting ourselves in a Greenland position. My submission is that the U.S. would rather look to Australia for sourcing its minerals at present, and that we should look to Europe for offtake markets and not unduly remind the U.S. of our riches.

Tenth, during the Second World War, we positioned ourselves to be the world’s largest supplier of minerals, but we failed to build up our own military force. We should learn from that escapade, notably now that we can no longer take U.S. protection or benevolence for granted.

To summarize, Canada stands at a strategic inflection point. There can be no national security without critical minerals.

I look forward to your questions and to discussing how Canada can strengthen its defence postures through a more resilient, secure and strategically aligned critical minerals sector.

Thank you.

● (1120)

The Chair: Thank you very much.

We’re going to go to our first round of questions, and we’re going to start off with Mr. Kibble, for six minutes.

Jeff Kibble (Cowichan—Malahat—Langford, CPC): Thank you, Mr. Chair.

Thank you to all our witnesses for your help in letting us understand the connection we’re trying to make today.

Mr. Hernandez-Roy, you mentioned the 12 NATO-identified critical minerals. Which of those are the top three in terms of importance to national defence in Canada?

Christopher Hernandez-Roy: It’s not easy to answer that, and I’ll tell you why. It depends. Certain minerals are obviously required to build certain weapons systems, to build your defence industry, but that might not be where the greatest risk is. The greatest risk is where the bottlenecks are. For instance, a metal like niobium, which Canada does have reserves of but is not yet producing, as far as I recall, is one of those metals that is at the greatest risk of disruption. It’s essential, for instance, in the commercial market, for strengthening car bodies. It makes a super steel alloy that makes steel much stronger. It’s also essential for building aircraft and other types of vehicles that require very light and very resistant metals.

Jeff Kibble: Can you explain some of the bottleneck risks? Which minerals does that apply to?

Christopher Hernandez-Roy: For niobium, for things like rare earths—which is, I think, what most people focus on, certainly what the media has focused on—the risks are simply that for some of these metals, China not only controls the market but has virtually a monopoly control of the market and has engaged in price manipulation, has engaged in using its market as a trade cudgel with, most recently, the United States but other countries as well. Japan had a problem with China for a while. Its lock on certain minerals makes western industrial processes entirely dependent on it.

Jeff Kibble: Thank you.

You mentioned DPA Title III, and I saw some smiles and nods. Could you explain that a little bit more, both of you? I didn’t see Dr. Byers. That seemed important, so please expand on that a little bit more.

I’ll start with Mr. Hernandez-Roy.

Christopher Hernandez-Roy: The Defence Production Act Title III has grant-making authority to invest in critical mineral projects, mostly to get them off the ground in both the United States and Canada. This stems out of the U.S.-Canada critical minerals—I forget the exact title—agreement, road map, action plan that was signed at the tail end of the first Trump administration. The first investments in Canada weren’t made until the Biden administration. One or two, if memory serves, have continued in the second Trump administration. As far as I recall, these are grants. These are not taking a stake in a mine.

● (1125)

Jeff Kibble: Thank you.

Ms. Steyn, you mentioned a recommendation for a five-year stockpile of critical minerals and rare earths, etc. Do you know—relative to the 12 NATO...or just maybe in general—where Canada stands in terms of a stockpile? Do we have anything? Are we at one year, two years? Do we have the capacity to do that? Perhaps you could expand there, please.

Dr. Elizabeth Steyn: We actually stand nowhere. We've announced an intention to start, but it is quite shocking where we are at the moment. The U.S. has announced a \$12-billion critical mineral stockpile. After the First World War, they had a five-year capacity under Eisenhower. Under Nixon, they shrank it to a one-year capacity. Nixon sold it off to balance the budget. At that stage, the thinking was that wars wouldn't be long anymore because of nuclear capacity. I think we've seen recently, for instance, with the Ukraine war, that wars are fought differently. Wars can be long. That thinking stands to be qualified, but there's also Australia, which has a \$1.2-billion stockpile that it's investing in.

Jeff Kibble: Thank you very much. That is shocking that we have zero stockpile.

Perhaps, Mr. Hernandez-Roy, you could expand on the risks of foreign ownership of mines. We've said we don't want the U.S. to have too much control. Would the same apply to China? In general, what are some of the risks of losing control of these, especially in the light of trying to build stockpiles that we shockingly don't have?

Christopher Hernandez-Roy: Before I answer that, if I could just make one brief comment about the stockpile, which is something that, in a paper I wrote on critical minerals for defence last year, I also recommended. This was back in February of last year.

There's another interesting angle to stockpiles that could be considered. Maintaining large government stockpiles is expensive and can be very static. Another thing that can be considered is the case of defence companies that have stockpiles for their own production. Let's say at the end of a given year, they have some minerals that they haven't used. Tax breaks could be given to them to encourage private companies to stockpile.

Jeff Kibble: We have only a few seconds. Can you talk about risks of foreign ownership?

Christopher Hernandez-Roy: I don't think all foreign ownership is clearly risky. The risk of foreign ownership is that the mineral supplies can be constrained in moments of...

Jeff Kibble: They can be shipped out of the country and taken away.

Christopher Hernandez-Roy: Well, Canadian authorities could do something about that, under—

Jeff Kibble: Do you feel it would be important to control the flow of these critical minerals out of Canada to potential adversaries or other countries?

Christopher Hernandez-Roy: I think the export and import—in this case, the export—of minerals and other commodities that are sensitive for national defence should absolutely be reviewed, yes.

The Chair: Thank you, Mr. Kibble.

Ms. Lapointe, we will go over to you for six minutes.

Viviane Lapointe (Sudbury, Lib.): Thank you, Chair.

Dr. Byers, I would like to ask you some questions related to your expertise in Arctic sovereignty and security.

How does the growing interest in Arctic resources, including critical minerals and rare earth elements, affect Canada's sovereignty and security considerations in the north?

Dr. Michael Byers: From a broader sovereignty and security perspective, it doesn't really matter much whether the rare earth elements or other critical minerals are located in southern Ontario or in Nunavut. In a lot of this conversation, we are talking about foreign governments or foreign companies gaining equity interests and the ability, in some cases, to decide whether to ship those resources abroad, even in the circumstance that they're needed in Canada for security reasons.

That issue of control over the products of a mine is a nationwide issue, and that's what we've been talking about so far. In terms of the Arctic, we have undisputed 100% control over all of the land territory in the Canadian Arctic. Our only dispute, concerning tiny Hans Island, was resolved in a very friendly way with Denmark three years ago. There's no question of sovereignty over land, and there's no country that disputes that sovereignty. There is, of course, a current president in the United States who has expressed a desire to make all of Canada the 51st state of the U.S.A., but that is a somewhat different issue.

We do have a couple of maritime boundary disputes, one of which is in the Beaufort Sea. There were negotiations on that between Canada and the United States during the Biden administration. It should be relatively easy to resolve. In terms of resources, it mostly concerns hydrocarbons that could be in the continental shelf. Access would be very expensive and is not feasible at the current world price for oil.

We also have, not a boundary dispute, but a dispute over the legal status of the Northwest Passage. The United States has long held that it's an international strait that foreign vessels can use without Canadian permission. Canada takes the view that it is Canadian internal waters and that our consent is required. We've agreed to disagree with the United States on this issue since 1988, in a moment of brilliant Canadian diplomacy by then prime minister Brian Mulroney in partnering with U.S. president Ronald Reagan.

In terms of sovereignty and critical minerals, my concern isn't about anyone gaining sovereignty over Canadian territory; my concern comes back to the issue of whether we would be able to say no in the event that a foreign-owned mining company were to choose to ship that resource out of Canada, even if it were needed here if, let's say, we needed access to some rare earth elements for the production of a fleet of fighter jets in Canada and saw that resource shipped off to China or the United States. That's a critical issue for me.

I'm very uncomfortable with the fact that the U.S. Department of Defense is acquiring an equity interest in some of these mines in Canada. That strikes me as a problem in our current situation, and I hope that we look at that during the renegotiation of CUSMA.

• (1130)

Viviane Lapointe: Dr. Byers, as the interest in Arctic resources grows, what kind of behaviour could we expect from foreign interests in testing Canada's boundaries, in your opinion?

Dr. Michael Byers: Again, I don't see any threat to our sovereignty over land.

Let me just say that Russia is the largest country in the world. It already owns half of the Arctic, unquestionably, without dispute, and it is seriously bogged down in Ukraine. China certainly has a very large appetite for resources of all kinds, including critical minerals and rare earth elements, but has found itself able to access what it needs through foreign investment and trade around the world.

We are in a deep trading relationship with China. When I look outside of my office window at the University of British Columbia, I can see dozens of cargo ships waiting to load Canadian natural resources to take to China. It's not so much, again, the fact that China is investing in Canadian resources and is purchasing Canadian resources; it's whether we have sovereign control over particular minerals that we need for our defence purposes.

As long as we have the ability to say no, which we do have under the Investment Canada Act, I don't actually see a problem, provided the government is vigilant. There was a period in the first couple of years of the Trudeau government when that vigilance shifted away. It slipped, and we saw a couple of high-tech companies, relatively small companies, that were purchased by Chinese companies when they really should have been subject to a national security review.

I think we got past that—

• (1135)

Viviane Lapointe: Dr. Byers, thank you, but I want to get a question to Monsieur Hernandez-Roy.

I want to ask you how U.S. policy-makers view partners like Canada in an effort to reliably secure defence-relevant mineral supply chains.

Christopher Hernandez-Roy: This administration in particular, but going back to the previous one as well, probably recognized the importance of critical minerals for defence sooner than anybody else in the western world. This administration in particular has been laser-focused on finding critical minerals that it deems necessary for U.S. national security, and the focus seems particularly to be repeatedly on rare earths.

You've seen the interest in Ukraine, the interest in Greenland, partnerships with Australia, interest in Canadian minerals and interest in minerals from places further afield, particularly in South America and Africa, although I don't know much about the critical minerals landscape in Africa. It's a strategy to find alternative sources of critical minerals that don't go through China, basically, and wherever those are, the United States is interested in finding them.

The Chair: Thank you.

Monsieur Savard-Tremblay, you have six minutes.

[*Translation*]

Simon-Pierre Savard-Tremblay (Saint-Hyacinthe—Bagot—Acton, BQ): Thank you, Mr. Chair.

I'd like to thank all the witnesses for being here and for their presentations.

My question isn't for anyone in particular, so anyone who feels they have something to add can jump in.

First of all, could we get an update on the agreement that was reached fairly quickly after President Biden took office? At the time, there was an agreement with Prime Minister Trudeau that gave companies in Canada and the United States access to the critical minerals of both countries. Could we briefly revisit this agreement so that we clearly understand what it involved?

[*English*]

Dr. Elizabeth Steyn: Thank you very much for the question. I apologize for responding in English, but I'm trying to save your ears from my horrible accent here.

The minerals security partnership that was entered into by Canada and the United States is more or less dead in the water at the moment. It exists in name still, but nothing is happening with it.

Its successor is twofold. There is the G7 alliance that is spearheaded by Canada, and then there is the recent endeavour by the Trump White House, which convened multiple other nations.

Nothing very much has come of that. There were a few investments made by both countries together, but I want to use this occasion to give you one very concrete example of a U.S. investment that can be detrimental to Canada. It is a Department of Defense investment in a Montreal company by the name of 5N. They manufacture germanium wafers.

Germanium is used for things like night vision goggles, which are military equipment. Germanium is in very short supply. China controls up to 97% of the world's germanium. We therefore want to make very sure that the U.S. doesn't control Canadian access to germanium. It's a Montreal company.

[*Translation*]

Simon-Pierre Savard-Tremblay: We'll come back to the United States later.

We know that attempts have been made in recent years to exclude China from the critical minerals file. Have they been sufficient?

[*English*]

Dr. Elizabeth Steyn: Well, it's excluded China in that, but we've also excluded ourselves. This has been only to the benefit of the United States, in the example I'm giving you at the moment. What I'm saying is that this has not been to the benefit of Canada.

[Translation]

Simon-Pierre Savard-Tremblay: Wasn't it still necessary to regain the confidence of the Americans by showing them that, for such strategic areas, China remains a concerning power?

• (1140)

[English]

Dr. Elizabeth Steyn: Certainly, although we have seen that in many of the critical minerals domains where we have previously been a supplier of choice to the United States, they've selected in the meantime to enter into contracts with Australia rather than Canada.

My submission to you, through the chair, is that we have not really succeeded in gaining their confidence.

The Chair: Mr. Byers had his hand up as well.

Dr. Michael Byers: I agree with everything that Professor Steyn is saying, and I'm grateful for her expertise.

I just wanted to raise a related issue. It's not just about preventing, let's say, the Chinese government from acquiring control over a Canadian mine; it's also a question of stimulating investment in Canadian mining of rare earth elements and other critical minerals.

One of the problems at the moment is that investors are wary of investing in a Canadian deposit because of the possibility that China could then start dumping that same product and therefore undermine the profitability of the enterprise.

One response to that is for governments to acquire equity interests in the mine, because governments don't need to make a profit, but there is an alternative approach. This was the subject of a *Globe and Mail* editorial. The editorial board of *The Globe and Mail* suggested a while ago that having a government-provided price floor would accomplish much of the same thing. In other words, the Canadian government would guarantee to a mining company and its investors that when they started to ship product, they would receive at least a minimum price, and investors could make long-term investment decisions based upon that certainty.

I want to put that on the table. It's not necessarily just a question of excluding bad actors; it's also a question protecting investors in Canada from the possibility of dumping by bad actors that might want to discourage a rare earth element mining industry in this country.

[Translation]

Simon-Pierre Savard-Tremblay: The last point, about what could be put in place to attract investment, was very interesting. Now, we also have to ask ourselves how to distinguish an investment from a potentially harmful strategic acquisition, one that could ultimately draw a red line that shouldn't be crossed.

In fact, I'll go even further: Is the Investment Canada Act currently sufficient?

[English]

Dr. Michael Byers: I will have a try at that.

Under the Investment Canada Act and under international law on foreign investment, Canada can stop a foreign investment and could

also stop the export of a product during a time of crisis. The national security exception internationally is very broad. As we saw in 2008, when there was no explicit national security exception in the Investment Canada Act, Jim Prentice still managed to read one in, so it's more a question of political will than anything else.

As I said in my introduction, I understand the government is currently developing regulations that will give greater specificity and therefore greater certainty to investors. Rest assured that if we were in a situation of geopolitical crisis, Canada could step in.

However, again, I worry that we could end up in a dispute, for instance, with the department of war in the United States saying, "No, no, no. We bought an equity interest, and under our contract, we have 100% right to use that product." All of a sudden, you're into a dispute over that with the United States.

We need to do better. This has to be part of the CUSMA negotiations, and it should not be done bilaterally now.

• (1145)

The Chair: Thank you.

Ms. Gallant, you have five minutes.

Cheryl Gallant (Algonquin—Renfrew—Pembroke, CPC): Mr. Hernandez-Roy, was it your understanding that the safeguards to protect sensitive sectors that were announced in the Prime Minister's strategic partnership with China would apply to critical minerals?

Christopher Hernandez-Roy: Unfortunately, I'm not sufficiently familiar with that to answer your question.

Cheryl Gallant: Dr. Steyn, would you comment?

Dr. Elizabeth Steyn: It was not my understanding.

Cheryl Gallant: Should the government extend these safeguards to include the critical minerals?

Dr. Elizabeth Steyn: I believe it should.

Cheryl Gallant: What kinds of critical minerals is China going after around the world? In particular, which minerals does Canada have that China has its eyes on?

Dr. Elizabeth Steyn: We do have large reserves of rare earths. We've been talking about rare earths, but China already has a lot of rare earths available to it.

What we do have recently is a lot of gallium and germanium. We have large stocks of nickel. Nickel is interesting, because nickel is one of the few things that China does not control. It's Indonesia that controls nickel in the world.

Also, our nickel is green, because we manufacture it with low-carbon renewable energy, which makes our nickel highly desirable.

Nickel, as I'm sure you all know, is the ultimate war material, going back to the Second World War, because of its use in the manufacture of various types of equipment. That is one that we should definitely look at, but we should also look at things like cadmium, which is not even on our critical minerals list as it is defined at the moment.

Cheryl Gallant: Okay.

Last week, the Minister of Natural Resources did not rule out Chinese state-owned companies from buying up Canadian oil, gas and critical minerals companies.

What would be the consequence if this government were to approve such a sale?

Dr. Elizabeth Steyn: At the moment they can do it anyway, and I want to give you an example.

There has been an outcry because of First Quantum Minerals, which, as you may recall, owns a copper mine in Panama. Everybody has been saying that this is a Canadian mine that was nationalized by Panama. However, 20% of First Quantum Minerals stock is owned by a Chinese company. It is the majority stockholder.

What I'm saying is that many of the mines that we consider to be Canadian are essentially Chinese anyway.

Cheryl Gallant: What is the threat of Chinese state-owned companies taking up a stake in infrastructure or leasing it in the way that they did with the port of Darwin in Australia? Are there any indications that the safeguards would extend to Chinese control of our infrastructure?

Dr. Elizabeth Steyn: I think there's always a risk. You may be aware of the port of Zambia in Africa. When the government defaulted on a loan, China took back the port.

Cheryl Gallant: The port of Darwin in Australia was leased to a Chinese company for 99 years in 2015. The Australian government is trying to reclaim ownership, and China has threatened them with vague measures.

China has long used economic coercion to defend its interests. What kinds of measures could they impose on countries taking back ownership of their infrastructure?

Dr. Elizabeth Steyn: It is very difficult politically, because China does not play by the same rules as the west.

Christopher Hernandez-Roy: Can I answer that, in that context?

I'm primarily Latin Americanist. Chinese control of infrastructure, particularly ports in Latin America, is a very big concern for the United States, because some of these things, including the megaport in Chancay in Peru, are being built with dual use specifications. In the event of a crisis, they can restrict trade flows, not only within the region but also to North America. Potentially they can be used for denial of area, operations or refuelling, etc.

Not only do they own and operate; they have the exclusive, almost sovereign, right to some of these areas. Allowing that kind of penetration is a huge risk.

You've seen the U.S. government recognize that with tactics that I don't agree with, but it's certainly a concern in, for instance, Pana-

ma, with Hutchison Ports controlling two of the four major ports on both ends of the Panama Canal. The Panamanian supreme court ruled two weeks ago that the contract would be null and void because the company basically didn't fulfill its contract.

The Chinese control energy systems. They control the electrical grid in Lima, Peru. They control a portion of critical infrastructure—not just ports, but other things as well—that countries in Latin America have not paid enough attention to and are thus vulnerable to economic coercion, should they try to pull back.

• (1150)

The Chair: Thank you, Ms. Gallant.

I know Dr. Byers' hand is up.

I'm going to pass the floor over to Mr. Watchorn. Maybe he can engage with you in this respect, but it's your time, Mr. Watchorn.

[*Translation*]

Tim Watchorn (Les Pays-d'en-Haut, Lib.): Dr. Byers, you may answer the question.

[*English*]

Dr. Michael Byers: Thank you. I will keep it brief.

I agree that some Latin American countries have not paid sufficient attention to Chinese investments and infrastructure. This hasn't happened in Canada with regard to major infrastructure like ports. I do believe that if a Chinese company wished to buy the port of Vancouver, the purchase would be blocked under the Investment Canada Act. It's an issue, but it's not yet an issue in Canada, at least not to that degree.

The other thing is that I want to suggest very briefly that you should distinguish between Chinese investments in mining operations located within Canada and Chinese investments in companies that are incorporated in Canada but whose mining activity is taking place overseas. The majority of the world's mining industry is incorporated in Canada, but an awful lot of those operations do not involve our territory. There's a distinction there.

We should still be concerned about those operations overseas, but my main concern is with mines located here in our territory.

[*Translation*]

Tim Watchorn: Thank you, Dr. Byers.

My question is more focused on Quebec.

I am most familiar with two graphite mines. There's the Nouveau Monde Graphite mine, located in Saint-Michel-des-Saints, which is in operation. I believe a processing plant is going to be built in Bécancour, which will follow the graphite production chain.

There's another mine closer to here. The La Loutre mine is not yet in production. This project is facing significant citizen and environmental opposition, in many forms.

Professor Steyn, how do we reconcile the critical aspects of the mines we want to bring into production with public opinion on mining, which is often very negative?

[English]

Dr. Elizabeth Steyn: We're talking about the Lomiko mines development. This is a very contentious mine, and I find it extremely ironic, because for once we don't have first nations opposition but a cottage community's opposition. I'll just leave it at that.

Of course, there has to be responsible mining. There have to be sustainable mining industry practices. It is important. We are not engaged in a competition to mine to the bottom. We understand that.

I am quite familiar with the Lomiko operation. I believe that they have crossed all their t's and dotted all their i's. It is unfortunate that in some occasions you will have people who are opposed. It is the not-in-my-backyard situation, but if we want things, we will have mining. If we want to have sovereignty within our country, then we must have mining within our country. Whether it is urban mining, by which I mean recycling, or greenfields mining, such as the Lomiko project, there have to be mining and processing and refining in the country. We have to make certain compromises.

• (1155)

[Translation]

Tim Watchorn: It's been said that foreign investment in mines is problematic. In the case of Lomiko Metals in La Loutre, \$8 million was invested by the U.S. Department of War for exploration.

Should we consider this particular project as a red flag for us?

[English]

Dr. Elizabeth Steyn: I don't think so, because that was invested without an equity stake and without an offtake agreement. I get very concerned when there are offtake agreements involved. When it is just an investment....

That was really under the minerals security partnership. It was a good example of the functioning of the minerals security partnership. That one really does not concern me. It is the most recent tranche of investments by the department of war that concerns me.

[Translation]

Tim Watchorn: I had the chance to visit the Abitibi—Témiscamingue region to see the state of the abandoned mines, the ones where the environmental situation is poor. The Government of Quebec often contracts out the rehabilitation of contaminated abandoned mine sites.

I would like you to reassure us and tell us that modern practices are much better than those used in the abandoned mines of the 1960s and 1970s, which polluted the rivers of Abitibi in extraordinary ways. I've seen rivers that have had toxic chemicals spilled into them, making them alkaline. The water looked nice, but no fish could live in it.

I would like you to tell us that things are better today than they were before.

[English]

Dr. Elizabeth Steyn: I can reassure you that mining today is a completely different game from what it was even in the eighties or nineties. It is simply not possible to operate in that way anymore.

Mining, unfortunately, had a number of very poor operators in the past. As you know, tailings, or the residues of mining, have been pumped into rivers. We've seen that in Abitibi and areas like that. It is an unfortunate legacy.

One of the things that I've mentioned is circular mining, getting value from waste. The idea is that we can rehabilitate these abandoned tailings, these abandoned mines, by getting minerals like rare earths and cadmium and scandium from those tailings.

[Translation]

Tim Watchorn: Mr. Hernandez-Roy, how do we reconcile a community's opposition with the need to extract minerals so that people really feel they've been consulted when there's a project like this?

[English]

Christopher Hernandez-Roy: You'll forgive me for answering in English. If we were in a more relaxed setting, I could probably converse fully with you in French.

How do we determine the balance? In the past, the balance was achieved because if there was sufficient opposition to something, there were other sources of a particular mineral. This is one of the reasons that China was able to dominate the critical minerals refining and mining space, particularly the refining. It was willing to accept the environmental damage, the environmental externalities, that come from that.

Now we know that we can't rely on China. Not only can we not rely on it but also it's actively using its monopoly against the west—when it suits it. Now we don't have that choice, and we must look at sources in Canada and in allied countries and develop them as responsibly as possible.

Canada is developing, for instance, some refining technology. The Saskatchewan Research Council has this. There's an outfit in Kingston with proprietary technology to refine rare earths in a much cleaner manner. Therefore, we are trying not only to develop rare earth capacity in Canada but also to develop rare earth capacity that's cleaner than anything that's made in China.

The Chair: Thank you.

Monsieur Savard-Tremblay, you have two and a half minutes.

• (1200)

[*Translation*]

Simon-Pierre Savard-Tremblay: Thank you, Mr. Chair.

Ms. Steyn, let's continue the discussion where we left off earlier, namely, the effort to draw the line for powers that could be considered concerning powers, even in peacetime, such as the People's Republic of China.

I briefly asked you earlier whether what's been done was sufficient. Dr. Byers, who is appearing by video conference, told us that the Investment Canada Act might be sufficient on its own, without even invoking the strategic aspect. Even without the strategic aspect, it might be enough.

That said, should we use the same approach as the United States, at a time when the United States itself is also giving us cause for concern? Should we follow exactly the same process used in recent years, when efforts were made to exclude China from the most sensitive sectors?

[*English*]

Dr. Elizabeth Steyn: I would like to caution a little, because the U.S. is a lot closer than China. I wouldn't overly antagonize the U.S. by invoking the Investment Canada Act. What I think we should do is something more subtle, and that is that we should be investing in our own. We have a lot of defence money that we need to invest in defence. Under the NATO agreement, there is no reason that we cannot invest this money into feedstock, critical minerals and our own mining. If we do that, then the U.S. can't do it.

[*Translation*]

Simon-Pierre Savard-Tremblay: Did you want to add something, Mr. Hernandez-Roy? I'm listening.

[*English*]

Christopher Hernandez-Roy: Critical minerals in Canada need to be looked at within the broader context of the U.S.-Canada relationship. Critical minerals are one of the aces in Canada's hand when it comes to the United States. The government has rightly not given away an agreement on critical minerals, as the Mexicans have already done, ahead of the CUSMA renegotiation.

Given that geography will join the United States and Canada forever, and given that the United States has to be our friend whether we like it or not, critical minerals have to play an important role in that. There may be certain very narrow investments that could rise to the level of some sort of a review. However, all in all, this is an area where Canada has a strength to play in our broader economic relationship with our largest trade partner, which is going to remain our largest trade partner, despite the political problems now, for the foreseeable future.

[*Translation*]

Simon-Pierre Savard-Tremblay: Dr. Byers, you had your hand up, so go ahead.

[*English*]

Dr. Michael Byers: Thank you.

I want to add briefly that this might be a situation where delaying negotiations with the United States might be the best strategy.

I've mentioned, and so have the other witnesses, that the fact we've delayed for the moment is good and that this can be part of the CUSMA renegotiation. However, I wouldn't want to see Canada locked into anything with such an unpredictable administration as the one in Washington right now. We've heard the threats concerning the 51st state. We've heard the repeated claims regarding Greenland and a desire to acquire that entire island, notwithstanding the wishes of the people who live there.

To adopt a Canadian position, we should be ragging the puck right now, when it comes to critical minerals and the United States. While we're doing that, we should be supporting Canadian industry. I mentioned having a price floor. Perhaps there's room for grants here. There's certainly a lot of room for building infrastructure like roads and ports to make the investor community more attracted to having Canadian mines owned by Canadians.

Thank you.

The Chair: Thank you.

Mr. Anderson, you have five minutes.

Scott Anderson (Vernon—Lake Country—Monashee, CPC): Thank you.

Dr. Steyn, you were talking about government investment. I'd like to clarify that. Are you talking about incentivizing companies or about direct government investment? Are you talking about nationalizing the industry?

Dr. Elizabeth Steyn: I'm not talking about nationalizing the industry. I am talking about direct government investment, subsidies and tax incentives and things like the Canada Infrastructure Bank. That's a variety of financial measures.

I'm also thinking about the critical minerals stockpile, which we can have in two formats. You can either have a big public stockpile or have what is known as a private stockpile, where you pay companies to keep larger stocks.

• (1205)

Scott Anderson: You said we have an "intention" to stockpile. Have we made any progress on that, to your knowledge?

Dr. Elizabeth Steyn: It was only announced in the 2025 budget.

Scott Anderson: Are there any concrete steps being taken toward that?

Dr. Elizabeth Steyn: Not to my knowledge.

Scott Anderson: Are there any reasons we have not pursued this that you're directly aware of?

Dr. Elizabeth Steyn: Not that I am aware of.

Scott Anderson: We've heard concerns about the lengthy permitting processes for mining, and we've talked about that here. Is there any indication that Canada is taking the hard steps to reduce some of the red tape and to move along on this?

Dr. Elizabeth Steyn: Certainly. There's Bill C-5. There's the Major Projects Office, and there's the indigenous advisory council that goes with the Major Projects Office. I think we are moving in the right direction.

I said in my opening remarks that we need to also take a hard look at our notion of critical minerals and at the list itself. It doesn't help us to stockpile the wrong things.

Scott Anderson: No, exactly.

Consulting often means that “I need to get it my way”—that's a euphemism for it—and that safety usually has a metric of zero, and if we don't achieve it, then it's no good. We have to come off that, and I think you've indicated that we have to move beyond that.

Of the minerals considered critical for defence applications, how many can Canada actually mine, process and refine domestically today?

Dr. Elizabeth Steyn: That is a hard question for me to answer because I'm not a geologist. I have had a hard look at the 2026 U.S. Geological Survey critical minerals review. I would say we can probably mine at least 26 of the 30 or so minerals that I think are needed for security. However, I stand to be corrected because I am not a geologist.

Scott Anderson: Okay.

Which specific defence systems require those? Let me be a little more specific. Are batteries, electronics, precision-guided munitions or communications equipment most vulnerable to mineral shortages?

Dr. Elizabeth Steyn: Things like gallium and germanium for night-vision goggles, rare earths for ballistic weapons, and nickel, tungsten and chromium for anything that requires hardened steel are off the top of my head.

After the meeting, honourable Chair, I can certainly provide the committee with a more extensive list and a write-up that analyzes this.

Scott Anderson: I would appreciate that.

Mr. Hernandez-Roy, do you have anything to add to that?

Christopher Hernandez-Roy: I mentioned earlier in my opening remarks that Canada already mines and processes the 12 critical minerals that NATO considers to be essential for defence. Just as a little carve-out here for a second, the USGS list of critical minerals I think is at 52.

Dr. Elizabeth Steyn: There are 60.

Christopher Hernandez-Roy: There are 60 now? I know there's a new list. They added copper and things like that.

Some of them have greater commercial applications than defence applications. Some of them have very niche defence applications. If we're talking within a defence context, you don't necessarily want to consider all of these minerals that are considered critical. “Critical” doesn't equate necessarily to “defence”. It just means critical for our industrial base and for our defence industrial base.

The 12 that NATO considers—and NATO obviously has just a defence lens—are aluminum, beryllium, cobalt, gallium, germani-

um, graphite, lithium, manganese, platinum, rare earths, titanium and tungsten. Canada has reserves of all of these and produces some of them, some in great quantities—aluminum, for instance—and others in much more limited quantities, like gallium and germanium, which, apart from night-vision goggles, are also essential for semiconductor manufacturing.

• (1210)

Scott Anderson: Okay. On the back end of this—

The Chair: Mr. Anderson, you're out of time.

I'm going to pass it over to Ms. Romanado.

You have five minutes.

Sherry Romanado (Longueuil—Charles-LeMoine, Lib.): Thank you very much, Mr. Chair.

Through you, I'd like to thank the witnesses for being with us today.

I want to start first with Professor Steyn.

You mentioned circular mining. I wanted to get your opinion on what role defence research and innovation can play in improving mineral efficiency, substitution or recycling.

Dr. Elizabeth Steyn: Absolutely. This is a crucial question. Thank you so much for this.

Natural Resources Canada has had a project called “creating value from waste” for a number of years now. It has done really extraordinary work on this. It's the CanmetMINING division that has this project, but I think defence should be involved in this project as well, because of the fact they've been focused more on the energy transition. If we look more towards defence and security, then I think the metals we are interested in are different—for instance, more towards rare earths, such as scandium and yttrium and things like that.

The other thing is that we have vast reserves. We don't need to construct the mine to get to them, but there is a lot of research that still needs to go into the processing. I spoke recently with an engineer who explained to me that the technology is not quite there. There is more research that needs to be funded for them to really do it at scale.

Sherry Romanado: You mentioned this briefly in terms of the budget. As you know, we're going to be releasing our defence industrial strategy quite soon. Key initial investments include:

...\$443.0 million over five years...to Natural Resources Canada and ISED to support the development of innovative critical minerals processing technologies, support joint investments with Allies in Canadian critical minerals...and [to] develop a critical minerals stockpiling mechanism to strengthen Canadian and Allied national security.

I wanted to flag it because you're probably not aware that the reason it has not been implemented yet is that the budget implementation act is held up right now in committee. It's being obstructed, and we haven't been able to actually implement the budget. I just wanted to flag that to you.

My next question is for Dr. Byers.

You mentioned the Investment Canada Act. In terms of some of the safeguards that have been put in place, I recall that—I want to say in 2010—there was also a possible purchase of a potash mine. If I remember, it was an Australian company that wanted to purchase the potash mine. That didn't pass because of national security reasons. Would you have any updates for us in terms of what we should be doing to strengthen the Investment Canada Act in terms of national security to make sure other projects are also protected?

Dr. Michael Byers: You're right about the potash company. I don't remember the details.

Yes, this issue has cropped up repeatedly over the years. As a result of amendments adopted after the RADARSAT-2 situation, we do have an explicit national security test. My understanding is that the regulations that are being developed will enable the Government of Canada to review any proposed foreign investment concerning a list of particular minerals. What goes on that list is probably still undetermined, but certainly it will be rare earth elements and other critical minerals.

There's no threshold and that's entirely appropriate. A national security review should happen any time a foreign company wants to buy into Canadian critical minerals located here. One thing you might do as members of Parliament is make sure that those regulations don't compromise on that particular issue. For instance, I know that there will be a higher threshold with regard to the financial size of foreign investments when critical minerals are not at issue. This is as a result of Mr. Carney's trip to Beijing. But that is different. Here, if we're talking about critical minerals and rare earth elements, as long as the Canadian government has the ability to scrutinize any proposed investments into those areas, we are okay, provided that the bureaucracy and the political will is there to implement that.

If I could just take another 20 seconds, all of this is related to not just particular government initiatives concerning critical minerals but also major infrastructure projects. We need an all-weather road to Grays Bay in Nunavut to enable mining to be developed there. We need a hydroelectric line to Baker Lake and Rankin Inlet to support the mining industry there.

This is all related. It's part of the entire government's push. I'm generally supportive of that. I would encourage you to look at the critical minerals issue in that broader perspective.

Thank you.

• (1215)

The Chair: Thank you.

Mr. Bezan, it's over to you.

James Bezan (Selkirk—Interlake—Eastman, CPC): Thanks, Chair.

I want to thank our witnesses for appearing today.

When we talk about the five-year stockpile, is that five-year stockpile based upon Canada's needs or based upon Canada and our allies' needs?

Dr. Elizabeth Steyn: The five-year notion comes from Eisenhower in the U.S., who was saying that the country should have a five-year stockpile in the event of war. He considered that to be a prudent amount for a country to have. I am proposing that simply as a measure. That would be for only the country. That would not necessarily be for the allies. I am saying that Canada should look towards its own needs first and then towards the needs of its allies.

There is a difference, though, between Canada and the United States in that in minerals, we tend to produce much more than the U.S. historically did. In that sense, we would be able to support our allies to a far greater extent.

James Bezan: Just so we're clear, when we're looking at the new NATO metric for defence spending, the 3.5% plus 1.5%, the 1.5% can be used for stockpiles, for investments in mining operations—refining and processing operations—and the infrastructure to get those critical minerals to and from the mine to the end-user. Is that correct?

Dr. Elizabeth Steyn: This is my understanding.

James Bezan: Is that true for all of you?

You are all shaking your heads. Okay.

Mr. Anderson referred to the length of time it's taking to get projects approved. Should we then be using the Defence Production Act in Canada? It doesn't get used that often. The last version is from 1985. Should that be updated? Should we be using national security exemptions to expedite the actual building of the mines, infrastructure and processing facilities required to get around some of those timelines and problems that we're facing?

You mentioned the NIMBYs and the reluctance on behalf of some of our other partners, including the provinces, on how we actually get this done and in the process create jobs and opportunity.

Dr. Elizabeth Steyn: I'm smiling because I'm a professor of constitutional law, so this is a very difficult question for me to say yes to.

Yes, I think it is necessary to take steps. Before taking such a radical measure, I would engage in consultation, and one of the things that might work for communities is equity stakeholding. I'm a proponent of softer measures that get community buy-in, rather than hitting them over the head with a hammer.

James Bezan: Mr. Hernandez-Roy.

Christopher Hernandez-Roy: I agree with that.

Canada has a number of instruments. Some have been mentioned here, such as the Infrastructure Bank, the export development bank and the new sovereign critical minerals fund. All of these things need to be applied to standing up the industry, standing up the infrastructure around it and using the stockpile, which, if I'm correct, is only limited to two minerals at this point. Clearly, that seems insufficient. We need to use those to meet our NATO commitments as well.

• (1220)

James Bezan: We're talking about the critical minerals and rare earth elements that China seems to have a great deal of control over, not just within mainland China; there are also PRC influence and ownership in mines in Africa and the Americas.

Look at how COVID impacted us and how critical supply chains were disrupted. Russia and China hold the hammer on a lot of these critical minerals. As a case in point, helium is another one that's really necessary in the production of semiconductors. Korea, Japan and Taiwan are really concerned about access to helium.

Is there a role here for Canada, again, to ensure that two of our adversarial nations, Russia and China, don't have complete control of some of these critical minerals?

Christopher Hernandez-Roy: That's right. Absolutely.

James Bezan: It is beyond the 30 you're listing here. Actually, if you dig down into supply chain impacts on the economy and manufacturing lines, it's a much bigger list than what we are currently looking at, is it not?

Christopher Hernandez-Roy: Certainly. It goes back to the issue of critical minerals being not just minerals for defence, but minerals for the broader economy. We should be looking at where there are bottlenecks that are important to our economy here and in the United States, and then secondarily, maybe, to allied countries.

The other thing that I think is worth mentioning is this issue of Canada mining in Canada and Canadian mining companies being some of the most important mining companies in the world. We should be looking at possible investments in mines in other jurisdictions.

I focus on Latin America, so I think a lot about Latin America. For 20 years now, the Chinese have dominated the mining scene there in terms of having feedstocks go to China and then being refined in China. We should be thinking about ways—the Biden administration tried to do this in some ways—to enter into new long-term offtake agreements so that feedstock is diverted from China, or doesn't go to China as much, but goes to refiners in allied jurisdictions. That could be Canada. The U.S. doesn't have very much refining capability. You try to see where there are refiners in countries that are stable and are our allies.

The Chair: Thank you.

I know, Dr. Byers, that your hand is up, but it is Mr. Malette's time, so I'm going to pass it over to him and we'll see how it goes from there.

Chris Malette (Bay of Quinte, Lib.): Thank you.

I have a question for Professor Byers as well. It may be what you were interested in speaking to.

My first question, however, is for Professor Steyn. It relates to consultation, as we talked about earlier in a question from my friend, regarding some communities. Are there national security risks that could arise if projects proceed without stable legal and indigenous partnership foundations?

Dr. Elizabeth Steyn: Absolutely.

Chris Malette: Can you expand on where we might see some of those issues arise, or how they may arise?

Dr. Elizabeth Steyn: If we talk about indigenous consultation not happening, we will see the fabric of society tear apart, and I don't think I am exaggerating here. With UNDRIP and indigenous rights coming forward, we see a movement now, and have seen it recently, where first nation members have said this will be like Kahnawake, just much worse.

I don't think we want to go there. I don't think we have to go there.

Chris Malette: To my point, that is how critical.... I believe that indigenous partnership and consultation on any aspect of what we're talking about is critical. Thank you very much.

Professor Byers, I know you had your hand up on the previous question. Given that the large majority of Canada's critical minerals processing is done in foreign countries—most notably China—what investments or strategies are being implemented or should be implemented in order to decrease the reliance on other countries and to ensure full end-to-end domestic supply chains? I'm talking about mining processing, manufacturing and even recycling.

• (1225)

Dr. Michael Byers: I just want to start by making a point concerning aboriginal rights. It is important for us to recognize that, yes, we need critical minerals as a nation-state, but it may be that, for a particular indigenous group, a caribou herd is a critical resource.

A critical resource is very much in the eye of the beholder. It depends on your position. It depends on your particular needs and self-interest, so this is not necessarily obstructionism for the sake of obstructionism. That's just my point. There will always be a need, not just for consultation but for compromise.

On the issue of investments generally, I also want to point out that we are talking about a long-term process here. It can take 20 years to develop a single mining operation. It can take 10 or 20 years to develop the infrastructure to support mining operations in some remote locations.

I felt some frustration from one of the members of this committee a few minutes ago about the pace of movement here. My general sense is that the current government is moving quickly and, for the most part, getting decisions correct.

You know, one can always second-guess, but I would suggest that this needs to be an all-of-Canada process, and there needs to be buy-in from all the different political parties. We are in a state of geopolitical urgency right now, and it does not simply concern China.

I'm glad this discussion is taking place, but please be patient with the government. It's going to take time to make this happen. We need to be careful, but we also need to be patient.

Chris Malette: Thank you.

I have one last question for Professor Steyn. As president of the G7, Canada has launched the G7 critical minerals action plan and unlocked the first round of strategic projects under the Critical Minerals Production Alliance. These 26 new investments, partnerships and measures will accelerate and unlock \$6.4 billion of critical minerals projects, and we do this to the highest environmental, labour and indigenous partnership standards anywhere in the world.

This circles back to my prior question. In your estimation, what advantages do those latter standards and practices bring us in attracting partnerships outside of, say, the U.S., which doesn't seem to give much credence to those standards and practices? Does that help our case in that regard, in developing partnerships on these critical minerals issues?

Dr. Elizabeth Steyn: It does, because it is exactly in accordance with the European Union's critical raw materials standards. This is a phenomenal market. It's much more than we can supply, in fact.

Chris Malette: Thank you.

The Chair: Monsieur Savard-Tremblay, you have two and a half minutes.

[Translation]

Simon-Pierre Savard-Tremblay: Thank you.

Mr. Hernandez-Roy, I think you were speaking earlier about Chinese geopolitics in relation to critical minerals. Basically, where are China's efforts being developed? We know that China is very active in Africa. Is Africa one of its areas of importance and influence for obtaining minerals?

You seem to want to add something on this subject. Go ahead.

Christopher Hernandez-Roy: It's not just Africa. China has mines in Africa, but it also has a very large presence in Latin America, in the southern cone. It is especially present in Chile and Peru, which are the largest copper producers in the world. The majority of their exports go to China. They also export to North America, but the raw product is mostly sent to China, where it is refined. China has mines around the world, but they're concentrated in Africa and South America.

• (1230)

Simon-Pierre Savard-Tremblay: Do you want to add anything, Ms. Steyn?

[English]

Dr. Elizabeth Steyn: I'd love to.

China has, for the last 20 to 30 years, had in Africa—and you can hear from my accent that I'm from South Africa originally—a phenomenal foothold. China has this infrastructure-for-concessions model whereby it will go into a country, construct infrastructure, such as a port, and in return get a mine concession. In that way, it has really built up mineral expertise throughout Africa. It's in, for instance, the Democratic Republic of the Congo, which is the biggest producer of cobalt in the world and is a very big producer of copper. It's very strong in Zambia. It's in Zimbabwe, in Angola and in South Africa. We find it everywhere in Africa.

[Translation]

Simon-Pierre Savard-Tremblay: I was also wondering about something else. In another committee a few years ago, I proposed a study on Canadian mining companies. We know there's a certain laxity when it comes to what constitutes a Canadian mining company. Registration is extremely simple, but in many cases, these mining companies aren't actually Canadian.

Do you have any information indicating that the Chinese are registering as Canadian mining companies when, in reality, they are Chinese interests?

[English]

Dr. Elizabeth Steyn: I gave you the example of Cobre Panamá. We see them operate in Africa very often. It will look like a Canadian mining company and is known as a Canadian mining company, but all of the employees are Chinese.

Christopher Hernandez-Roy: In the South American context, under the Biden administration's Inflation Reduction Act, there were tax incentives for countries that had free trade agreements with the United States. They could have tax rebates on minerals that were exported to the United States as long as the companies that were exporting had less than 25% Chinese ownership in them. As a result of looking into that—we did some research at the CSIS on this—we found that a number of copper companies in South America are held by other companies that are held by other companies that are, in fact, specifically designed to hide their Chinese ownership. This seems to be a widespread practice.

The Chair: Thank you.

Mr. Kibble, you have five minutes, please.

Jeff Kibble: Thank you, Mr. Chair.

Professor Steyn, you mentioned—and I guess we're seeing it across the world—China exerting control over minerals and trying to hide it. You gave examples in Africa and South America as well, whether it's employees or control of the minerals or the exports. Should we expect the same here, and should we protect ourselves from the same here in Canada?

Dr. Elizabeth Steyn: We should. I have seen companies operating in Canada in which we have the same thing. If they are listed on the TSX, then we should ask ourselves who the shareholders are behind them.

Jeff Kibble: That's perfect. I would love a list of all of those companies.

In terms of defence, are there any critical minerals that countries such as, say, China do not have access to and that we have access to here in Canada? If so, is this something that we should be selling to them or keeping for ourselves?

Dr. Elizabeth Steyn: I don't think there are any critical minerals that China does not have access to.

Jeff Kibble: That's fair enough. Maybe we should consider that for some other countries as well.

Mr. Hernandez-Roy, should we expect our critical mineral sites to become active targets for our adversaries, either economically or strategically? As we discussed earlier, China seems to want to play by its own rules.

Christopher Hernandez-Roy: Do you mean active targets in the sense of for acquisition?

Jeff Kibble: I mean for acquisition, for control, for predatory practices or even as, God forbid, military-type targets—or for sabotage.

Christopher Hernandez-Roy: We've engaged in some pure speculation about what would happen if the Chinese one day decided to land in some remote location in the Canadian Arctic because there happens to be a critical mineral deposit there and then established a presence. What do we do about that? I think that's just pretty much in the fantasy realm right now, but it's worth thinking about.

In terms of those minerals that are critical to our national well-being and certainly to our defence, they need to be protected against any sort of foreign ownership, or at least reviewed against any foreign ownership, and safeguarded against that.

• (1235)

Jeff Kibble: I mentioned strategic, but what about such things as cyber-attacks that will shut down and control and damage our production? Is that a risk from countries like China?

Christopher Hernandez-Roy: Certainly, but it's not just for the mines. More importantly, it's the infrastructure that can be targeted. I mean, we've seen targets against the Port of Montreal, for instance—

Jeff Kibble: Targets—

Christopher Hernandez-Roy: Cyber.

Jeff Kibble:—from who?

Christopher Hernandez-Roy: Foreign adversaries; China is certainly one. Russia, I think, was the particular source in the case of the Montreal attack.

Jeff Kibble: Thank you.

The government has declared China as our new strategic partner. Should this include sharing our defence-related critical minerals

with them and maybe helping them stockpile, or is it something we should guard against? Is there a risk to that?

Christopher Hernandez-Roy: I think the Prime Minister, and I'm just speaking from what I've seen in the press, has made it clear that the partnership is entered into with eyes wide open. There are certain purely commercial relationships, such as oil and foodstuffs, but the trading relationship will not rise to the level of certain goods or certain materials that are sensitive to national security.

Jeff Kibble: The term “strategic partnership” was used. In your opinion, should we define what that is limited to in terms of what a strategic partnership is? Should that include access to or supplying of critical minerals to China?

Christopher Hernandez-Roy: I don't think we should be supplying, but again, it goes back to what the definition is of critical minerals, for instance.

Jeff Kibble: It would be defence-related critical minerals. Although we now have a strategic partnership, you feel that we should exclude critical minerals from that in terms of supplying China and—

Christopher Hernandez-Roy: I think “strategic” relationship might be a bad use of the word. I mean, it's essentially agricultural products, for EVs, and oil—

Jeff Kibble: It doesn't sound strategic.

Christopher Hernandez-Roy: Exactly.

Jeff Kibble: I'm talking about defence.

Perhaps Professor Steyn could elaborate as well.

Dr. Elizabeth Steyn: Mr. Kibble, I would suggest that maybe Canada needs to have a definition of not only critical minerals but also strategic minerals.

Jeff Kibble: Thank you. I appreciate that. I'll take that into account.

Would you consider crude oil as a critical mineral both economically and strategically? Further, should we be stockpiling fossil fuel from a defence perspective?

Christopher Hernandez-Roy: We should have a certain stockpile of oil. The United States has had a strategic petroleum reserve for decades. In the case of Canada selling more oil to China than it has in the past, this is as a direct result of the need for Canada to diversify its trading relationship, given the aggressive economic coercion of Canada by the current administration in the White House. We're selling more oil to China because there is an international market for oil. It can buy it from Saudi Arabia or it can buy it from us.

Jeff Kibble: There are certainly benefits to selling oil. I'm not against that. It's more about the strategic partnership and stockpiling and controlling.

Professor Steyn, what do you feel we need to do to best protect our supply?

It's a very broad question, so maybe in my last few seconds here, I'll go around the room. From a defence perspective, what do we need to do to best protect our supply of critical minerals from our adversaries so that we can support such things as a critical stockpile and a five-year stockpile?

Let's just fire around the table, if we could.

Dr. Elizabeth Steyn: I'll be very quick: Define what strategic minerals are, stockpile them and safeguard them.

Jeff Kibble: Safeguard them from...?

Dr. Elizabeth Steyn: Safeguard them from adversaries.

Jeff Kibble: Thank you.

Would you agree, Mr. Hernandez-Roy?

Christopher Hernandez-Roy: I have argued in certain papers that stockpiling is necessary. It's necessary to hedge against prolonged conflict. Much of the thinking there is as a result of the Russian invasion of Ukraine. It's also critical, while we build up our own critical minerals industry, to safeguard from China. It's important for us to have a reserve that can cushion us against price shocks from China.

Jeff Kibble: Thank you.

I apologize, Dr. Byers. I think I've run out of time.

The Chair: No worries, Mr. Kibble. We'll have a few more questions.

• (1240)

Jeff Kibble: I appreciate your leniency.

The Chair: Ms. Lapointe, it's over to you.

Viviane Lapointe: Thank you, Chair.

My "waiting in airport lounge" reading these days is a book called *Mining is Dead. Long Live Geopolitical Mining*. It was recommended to me by a constituent, and I'm grateful to him. I'll just quickly read a passage, because I think it speaks to the study we're doing at this committee currently:

As critical minerals have gained importance, governments worldwide have elevated mining and mineral supplies into key issues of national security and foreign policy. What was once left in the hands of mining companies and commodity traders is now a priority on the agendas of presidents, defense ministries, and diplomats.

It speaks to what we're talking about here today.

Mr. Hernandez-Roy, I'd really like to hear your thoughts on this. In allied co-operation, where is the line between collaboration and over-dependence when it comes to strategic materials?

Christopher Hernandez-Roy: I think it's when the majority of your relationship is with only one client. You need to have more than one trading partner, more than one client, in order to hedge against the effects of over-dependence when it becomes used as a tool of coercion.

I don't know where that fine line is, but it does mean that while Canada should still be, say, having the United States as a really important if not primary client in terms of critical minerals, we should be leaning into Europe very heavily, and we've seen the government moving in that direction.

Viviane Lapointe: Professor Steyn, what steps would strengthen Canada's position as a trusted partner without putting its own security at risk?

Dr. Elizabeth Steyn: I think we should first look out for ourselves. We should get away from this Canadian notion of selfless service. I love being Canadian, for the record, but we should first look after ourselves.

Viviane Lapointe: My next question is for all the witnesses who are here today.

When Canada's allies talk about trusted suppliers, what are they really looking for beyond the presence of just minerals in the ground?

I'll start with you, Mr. Hernandez-Roy.

Christopher Hernandez-Roy: Is that within allies or broadly talking about critical...?

Viviane Lapointe: It's broadly.

Christopher Hernandez-Roy: The very first thing that comes to mind, of course, is China's manipulation and coercion and its using critical minerals as a trade cudgel. That's number one. We want to not trade with or have mineral dependency on any country that is going to weaponize that relationship in a moment of crisis or for some economic gain.

We also, then, want to have partners who might otherwise be reliable partners, but who in a crisis will also not.... Let's say it's within the G7. If we have relationships with critical minerals, say, with Germany, which is in the news a lot maybe because of the submarine deal.... I'm not picking on Germany for any reason, but my point is that, in a crisis, we still want to make sure that it remains a trusted partner, meaning an ally, a friend in fair and foul weather.

Viviane Lapointe: Professor Steyn.

Dr. Elizabeth Steyn: I have a slightly different angle. I agree with all of that, but I think we should also look towards other countries in similar types of situations.

I have in mind here specifically Kazakhstan, because Kazakhstan is sitting with China on its back in the way that we have the U.S. on our border. Kazakhstan is very mineral rich. If you look at all of the minerals they have, they don't necessarily want to be dominated by China and they don't immediately have an offtake market.

Viviane Lapointe: Dr. Byers.

• (1245)

Dr. Michael Byers: What I can add to the conversation here is that we are a trading country and there's no reason to stop being a trading country. The issue is how we protect the integrity of our mining sector within Canada from malicious actors.

I come back again to the fact that under the Investment Canada Act and the new regulations, the Government of Canada has to be able to and should scrutinize every single foreign investment into rare earth elements and certain other critical minerals to be defined by the government in consultation with experts from the geology sector.

The point here is that we don't want to close ourselves off. We benefit from trading. We just need to make sure that we're not locked into situations we couldn't get out of if a particular ally were to turn on us in some negative way. I do very much support Professor Steyn's encouragement that we look to the European Union as our next big market opportunity, given that there's more stability there at the moment than there is in the United States.

The Chair: Thank you.

Mr. Bezan, you can have a couple of minutes, and then I would like to go on to some other issues that we have to resolve.

James Bezan: Thank you, sir.

I want to follow up on what Dr. Byers was just saying, and I'll open it up to the other witnesses as well.

We've talked about the Investment Canada Act and how the thresholds in there may be too high. Maybe they should be narrowed down. I've been paying attention to the Tanco Mine, which is actually headquartered in my riding. It's owned by Sinomine and was bought off the New York Stock Exchange. It was below the automatic trigger for a foreign investment review. It produces lithium and tantalum—all on the critical minerals list—as well as cesium. All of it is shipped raw to China.

The government turned a blind eye to this several years ago. The Biden administration, I believe, was in power. It might have been the tail end of the Trump administration. They never said anything because it was off the New York Stock Exchange.

Do we need to have stronger oversight and thresholds of these more insidious investments that look like commercial acquisition, rather than actual investments in critical minerals?

Dr. Michael Byers: Yes, I very much share your concern. I think a mistake was made with regard to oversight in that particular instance, and that's precisely the kind of situation we need to guard against in the future.

I share Professor Steyn's concern that companies, like Chinese companies, will seek to engage in multiple incorporations, sometimes in different jurisdictions, in order to hide the paper trail that leads back to the ultimate ownership. That's where the scrutiny has to take place. The Government of Canada should be able to do this. If it can't do it now, in all necessary instances, it needs to develop that capability.

The other thing I will say, in response to a point you raised a few minutes ago, is that I'm not concerned about China physically invading Canada, but I'm very concerned about espionage, particularly as we develop new technologies. We see what Russia is doing

with regard to Europe, like jamming GPS signals or drones shutting down airports in peaceful areas of Europe. There's a general level of harassment that we need to be prepared for. It doesn't concern just critical minerals, but we can't be naive about other countries. We live in a dangerous world, and balancing that against—

James Bezan: I'll interject quickly because time's running short.

When we look at the specifics of the Tanco mine in Manitoba, knowing that tantalum is used in weapons and armour, it very much has a defence purpose. I argued against the government doing this several years ago. It still went ahead because it was below the thresholds that were in place.

Should we now revisit that on the grounds of national security and force Sinomine to divest?

• (1250)

Dr. Michael Byers: I think it needs to be considered. The government certainly has the power to expropriate that resource. Expropriation is something that trade-loving countries don't tend to embrace, but in a situation of national security, it certainly is an option.

James Bezan: Professor Steyn.

Dr. Elizabeth Steyn: I would recommend putting together a list of strategic minerals and revisiting the ownership of all of those strategic mineral mines.

James Bezan: On a point of order, Mr. Chair, Professor Steyn, in her opening comments, had a complete list of 10 to 15 points. Can we make sure that it gets circulated around to everyone, as well as the speaking notes of all of our witnesses today?

If you have any strategic lists that you think we should be aware of, please send them in.

The Chair: That's a great way to wrap up. I appreciate that.

Anything you can share with the committee would be welcome. It's certainly a study that all of us are concerned about as we go forward, especially around sovereignty, but also around the economic impacts it's going to have long term.

Again, thank you to the witnesses for being here. I appreciate your time and your testimony.

I have some housekeeping matters, folks, before we leave. You've been sent four budgets. I want to go through them quickly so that we can adopt them, and I can then sign them and proceed.

James Bezan: I have some questions on the budget.

The Chair: There is one regarding a trip to Colorado Springs.

James Bezan: Do you want to do this in camera?

The Chair: That's probably not a bad idea.

To the witnesses, thank you again very much.

We're going to suspend and go in camera.

[*Proceedings continue in camera*]

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