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# Standing Committee on Government Operations and Estimates

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Chair: Mr. Robert Kitchen





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Monday, March 8, 2021

• (1610)

[English]

**The Chair (Mr. Robert Kitchen (Souris—Moose Mountain, CPC)):** Welcome to meeting number 19 of the House of Commons Standing Committee on Government Operations and Estimates.

We will be hearing from the Parliamentary Budget Officer and his officials regarding his report, “The Cost of Canada’s Surface Combatants”.

Today's meeting is taking place in the new webinar format. Webinars are for public committee meetings, and are available only to members, their staff and witnesses. Members may have remarked that the entry to the meeting was much quicker, and that they immediately entered as an active participant. All functionalities for active participants remain the same. Staff will be non-active participants only, and can therefore only view the meeting in gallery view.

I'd like to take this opportunity to remind all participants to this meeting that screenshots or taking photos of your screen is not permitted.

To ensure an orderly meeting, I would like to outline a few rules to follow. Interpretation in this video conference will work very much like in a regular committee meeting. You have the choice, at the bottom of your screen, to use floor, English or French. Before speaking, please wait until I recognize you by name. When you are ready to speak, you may click on the microphone icon to activate your mike. When you are not speaking, we ask that your mike be on mute.

To raise a point of order during the meeting, committee members should ensure their microphone is unmuted, and say “point of order” to get the chair’s attention.

In order to ensure social distancing in the committee room, if you need to speak privately with the clerk or analysts during the meeting, please email them through the committee email address. For those people who are participating in the committee room, please note that masks are required, unless seated and when physical distancing is not possible.

I will now invite the Parliamentary Budget Officer to make his opening statement.

Mr. Giroux, welcome again, and thank you for taking the time to be with us.

**Mr. Yves Giroux (Parliamentary Budget Officer, Office of the Parliamentary Budget Officer):** Thank you, Mr. Chair. It's our pleasure.

[Translation]

Good afternoon, Mr. Chair and members of the committee.

Thank you for the invitation to appear before you today.

We are pleased to be here today to present the findings of our report entitled, “The Cost of Canada's Surface Combatants: 2021 Update and Options Analysis,” which we were honoured to prepare at the request of this committee. With me today I have our lead advisor-analysts on the report, Carleigh Malanik and Christopher Penney.

Consistent with the Parliamentary Budget Officer's legislated mandate, at the request of this committee, my office prepared an independent costing analysis of building the Canadian surface combatants with the continuation of the type 26, as well as the cost for two alternate designs, the European multi-purpose frigate, or FREMM, and the type 31e.

• (1615)

[English]

We estimate that a fleet of 15 type 26 ships will cost \$77.3 billion, rising to \$79.7 billion if there's a one-year delay in 2021-22, and \$82.1 billion if there is a two-year delay. This estimate represents an increase of \$7.5 billion over our previous estimate, which was provided in 2019, due to updates in the ship's specifications and production timelines.

As requested by the committee, our report also presents a cost analysis of two other ship designs: the FREMM European multi-mission frigate and the type 31e, a class of general-purpose frigate planned for the United Kingdom's Royal Navy.

The cost of acquiring 15 FREMM ships is estimated at \$71.1 billion, while the cost of a fleet of 15 ships based on the type 31e design is estimated at \$27.5 billion. These estimates are inclusive of cancellation costs, running a new competitive design selection process, and an additional four-year delay in the start of construction. It's important to note that these ships have different characteristics and capabilities.

Finally, our report considers a hybrid approach under which three type 26 vessels are procured, and the remaining 12 ships are competed, with either the FREMM or type 31e being selected. Under this scenario, the costs increase to \$71.9 billion for the mixed FREMM fleet, and \$37.5 billion for the mixed type 31e fleet.

We would be pleased to respond to any questions you may have regarding this report or other PBO work.

Thank you, Mr. Chair.

**The Chair:** Thank you, Mr. Giroux.

We will now go straight into questions, and we will start with Mr. Paul-Hus.

You have six minutes.

[*Translation*]

**Mr. Pierre Paul-Hus (Charlesbourg—Haute-Saint-Charles, CPC):** Thank you, Mr. Chair.

Thank you for being with us today, Mr. Giroux.

The report clearly identifies issues related to cost monitoring, particularly with respect to the Department of National Defence's and your estimates.

Why is that? What is the Department of National Defence not taking into consideration when making its estimates?

**Mr. Yves Giroux:** First, I can say that provincial taxes aren't included in the DND estimates. Beyond that, it's difficult to determine what DND doesn't include in its estimates, because we haven't had access to its costing model.

We've obviously asked for a lot of information to come up with our own cost estimates, and we've received most of that information. However, we didn't ask for details on how they estimated the costs.

Our objective was to provide an independent estimate, not to verify how it was costing. So, it's difficult for us to determine what costs have been omitted by National Defence or why there's such a big difference between the estimates.

**Mr. Pierre Paul-Hus:** In other words, if our committee hadn't asked you for a cost estimate, we wouldn't have those numbers right now.

Could you explain why the department is so lacking in transparency?

**Mr. Yves Giroux:** The most recent estimates from National Defence, putting the costs at about \$56 billion to \$60 billion, are from 2017. You might think that these estimates are a bit out of date, but a few days ago, National Defence reaffirmed that it's certain that the estimated costs of \$56 billion to \$60 billion from four years ago are still valid today. I don't see why there's such a big gap between our estimates and National Defence's, or why National Defence is coming up with costs that are so much lower than ours.

That said, I have full confidence in the reliability of the cost estimates provided by Ms. Malanik and Mr. Penney, who are with me today.

No information provided by National Defence suggested that the costs could have been lower than what we estimated. If we had had information that would have enabled us to estimate costs closer to those of the department, we would have done so. The information provided led us to the result of \$77 billion.

• (1620)

**Mr. Pierre Paul-Hus:** I'm going to read what's written in the 2019-20 Departmental Results Report from Public Services and Procurement Canada, or PSPC:

There is a risk that PSPC may not have sufficient procurement resources to deliver on priorities, objectives, and programs due to a shortage of procurement officers with the appropriate knowledge, which can require several years of experience specific to federal government procurement.

Is there currently a lack of expertise in the public service that often results in miscalculations due to a lack of qualified personnel?

**Mr. Yves Giroux:** A program of the magnitude that the Royal Canadian Navy wants to undertake—the construction of surface combatants—certainly requires a great deal of expertise. However, if it's a priority for National Defence, Public Services and Procurement Canada, and the government, there is a way to allocate sufficient resources to ensure the success of this project. I don't believe lack of resources is the only explanation, but it may be one of the factors.

When you're talking about a \$77 billion project, I honestly think it's worth putting a lot of resources into it, like a few dozen or even hundreds more employees. And the returns could be really interesting, given the amounts involved.

**Mr. Pierre Paul-Hus:** In your calculations, you didn't take into account the infrastructure needed for the ships, such as docks. Have you done an estimate for the infrastructure costs for this particular fleet?

**Mr. Yves Giroux:** We estimated the costs required to build the shipyards so that the ships could have the necessary infrastructure. However, the costs of operating the surface combatant fleet haven't been considered. If, for example, the Royal Canadian Navy needs to build additional, deeper or larger docks in Halifax or Esquimalt, that hasn't been taken into account, to my knowledge.

The report focuses only on development and acquisition costs and spare parts costs for two years. Those are the only costs included in the report.

**Mr. Pierre Paul-Hus:** According to your report, you expect the acquisition of the fleet to be delayed by two years, but it could also be three, four or five years.

I know you touched on this a little bit, but could you talk more about your assessment of the additional costs associated with a three-, four- or five-year delay?

**Mr. Yves Giroux:** We did what's called a sensitivity analysis to see how different scenarios would affect the cost estimates. We came to the conclusion that one year of delay would cost \$2.3 billion. If there were a two-year delay, it would cost an additional \$4.8 billion. This is due to the fact that costs are being pushed over a total horizon of about 20 years.

**Mr. Pierre Paul-Hus:** So there would be additional costs of \$2.3 billion a year, is that right?

**Mr. Yves Giroux:** It would be the total costs. It's due to inflation, because it's a program that's going to take 25 or 30 years. If there's a one-year delay, then overall spending is deferred and inflation has a compounding effect on the duration of the program. As a result, total costs would be \$2.3 billion more for a single year of delay.

[English]

**The Chair:** Thank you, Mr. Giroux and Mr. Paul-Hus.

We will now go to Mr. MacKinnon for six minutes.

[Translation]

**Mr. Steven MacKinnon (Gatineau, Lib.):** Thank you very much, Mr. Chair.

Mr. Giroux, I'd like to thank you and your team, not just for this work, but also for the ongoing work you do for us, members of Parliament.

As the parliamentary secretary, I've seen this program evolve significantly over the past few years. The first thing I'm sure you'll agree with is that the cost estimates for the projects that were contemplated by the previous government have had to be substantially increased. I think under the previous government, the cost estimates for the same ships were \$20 billion to \$22 billion.

Can you confirm that?

• (1625)

**Mr. Yves Giroux:** If I remember correctly, Mr. MacKinnon, the initial cost estimates were about \$26 billion for the 15 ships.

**Mr. Steven MacKinnon:** That's it. I think you can see a fairly systematic failure in cost estimates, whether it's the DND today or yours.

I'm trying to understand the discrepancy between your estimates and those of DND. I notice that one of the reasons for that, as you pointed out, is that sales taxes aren't included.

With regard to this first discrepancy, why does your methodology include these taxes, while DND's doesn't?

**Mr. Yves Giroux:** That's a good question. It's probably just a matter of choice. The Department of National Defence may not see fit to include provincial taxes in the calculation, but we think it's relevant because it's a cost that the department will have to absorb.

As for federal sales taxes, they represent a zero cost, of course, because what DND would pay GST, for example, would be entirely returned to the government. But provincial taxes don't come back to the federal government. So that's a cost that we chose to include so

that there would be more transparency. I honestly believe that DND should also include taxes for the same reason.

**Mr. Steven MacKinnon:** As for the other category of costs, I'm sure you would agree that we have to start building these ships to avoid other costs. But your report talks about the acquisition of other ships. So there would have to be a process of design, architecture, procurement of combat stores and systems, and so on.

How do you see the possibility of further delays, and therefore further costs, in building the surface combatants that our navy needs, when we could have ships immediately, as is currently being contemplated by the government?

**Mr. Yves Giroux:** That's an important question.

Starting from scratch would obviously mean stopping the current process and going through a new call for proposals following a competitive process. This would likely add four years to the overall timeline.

That's why we looked at another scenario in our report. Under this scenario, the construction of up to three Canadian type 26 surface combatants would be maintained to reduce the negative impact on the Royal Canadian Navy's fleet and prevent it from suffering from a significant capability gap.

**Mr. Steven MacKinnon:** As you mentioned, and as we can assume, DND has looked at many options to achieve the necessary ship capabilities, such as the one we're evaluating today, which is referred to as a hybrid. According to the department, this would provide our navy with the necessary capabilities for generations to come. That's already been considered, in a way. Isn't that right?

**Mr. Yves Giroux:** The committee asked me to estimate the costs associated with different models, such as the European multi-mission frigate, or FREMM, and the type 31e ship. We created a hybrid scenario to avoid a four-year "hole" and spare the Royal Canadian Navy an undue shortfall in capability. If National Defence has done this exercise, so much the better, but I thought it would be useful to provide these estimates to the committee.

**Mr. Steven MacKinnon:** They are very different ships. That's basically the point I wanted to make. Between the type 26, the FREMM and the type 31e, there are significant differences in the capabilities and opportunities they provide to the Royal Canadian Navy. Isn't that right?

**Mr. Yves Giroux:** Yes, we note in our report that the type 31e is the smallest and doesn't have the same kind of capability as other ships. That being said, the FREMM and the type 2 ship aren't identical, but they provide roughly similar capabilities. France and Italy, in particular, will be using them as their main frigates. They aren't identical ships, but they can be compared to the FREMM and the type 26.

• (1630)

**Mr. Steven MacKinnon:** Right, but the surface combatants are going to replace—

[*English*]

**The Chair:** Thank you, Mr. MacKinnon. You hit it right at the six minutes. Unfortunately you didn't get that last question, but next time.

We'll go now to Ms. Vignola for six minutes.

[*Translation*]

**Mrs. Julie Vignola (Beauport—Limoilou, BQ):** Thank you very much, Mr. Chair.

Thank you, Mr. Giroux, for being with us.

Are you able to tell us why there's such a delay with the type 26 ships?

**Mr. Yves Giroux:** We don't have a specific explanation for this. We used National Defence data. We know that the net weight of the ship has increased, so there are probably changes in the specifications. We also know that the type 26 isn't used anywhere on the planet. So it's a new type of ship, which could explain some of the delays.

In any event, we didn't conduct a thorough investigation to determine the exact nature of the delays. The perspective of our report is forward-looking, so not backward-looking. We want to determine ship costs rather than the causes of past events.

**Mrs. Julie Vignola:** Thank you.

What are the main challenges for departments when presenting an initial budget for a project of this nature? We're still talking about an increase of a little over \$51 billion.

So that we have an overview, can you tell us what the long-term challenges are for the department?

**Mr. Yves Giroux:** That is a good question. The main challenges are in the design of the ships. This applies to any long-term purchase. When you are buying something that has not yet been built, that does not yet exist, the costs come with a number of risks. Essentially, there is no basis for comparison.

The specifications are also unique to each country, particularly those pertaining to warships. The time horizon is also very significant. The ships we are buying do not presently exist. This is not like buying a car. We are buying 15 copies of a ship that will take several decades to build. Inflation is a major factor, especially when we are talking about 25 or 30 years, or even longer. These are the main risk factors that must be considered when costs have to be determined.

If we have more time, I am sure that Ms. Malanik and Mr. Penney could handle that question a lot better and much more clearly than I can.

**Mrs. Julie Vignola:** Thank you, Mr. Giroux.

It is possible to measure inflation.

Would it be possible for departments to improve their forecasting methods with such major projects?

**Mr. Yves Giroux:** There might certainly be a way to do that, but there are a number of unknowns. It is difficult to assess something that is spread over a period of 25 to 30 years.

Perhaps some risk lies in presenting cost estimates that are higher than the initial ones. If you present the cost of buying frigates at \$75 billion from the outset, it may well scare those making the decision, whereas, if the estimated cost is less, the estimate could be accepted and approved more easily.

However, I'm not pointing fingers at anyone. It is difficult for me to talk about specific factors, given that I did not participate in the initial cost estimates. In addition, we did not see the details of the cost estimates that were done in the past.

**Mrs. Julie Vignola:** Thank you, Mr. Giroux.

Do you have an idea of what two classes of ships might cost?

At the moment, we have to replace 12 Halifax-class and three Iroquois-class ships.

If we follow basically the same process of having two classes, would the costs be a lot greater in the future than they are at the moment for the 12 frigates and three destroyers?

**Mr. Yves Giroux:** We did not estimate operating and maintenance costs. However, we know that, in general, the less expensive the ship, the lower those costs are. Everything would depend on the type of ship chosen to replace the type 26 by a hybrid model.

We are talking about three type 26 ships and 12 type 31e ships. The operating and maintenance costs of the type 31e would probably be significantly less than those for the type 26, but that remains to be seen. A specific analysis would have to be done.

Estimating the operating costs for a hybrid fleet was not part of our mandate. Generally, when ships cost less to buy they also cost less to operate and maintain. That does not automatically mean that the operating and maintenance costs of a hybrid fleet would be higher.

• (1635)

**Mrs. Julie Vignola:** Okay.

I am well aware that we are talking about substantial ships, warships in fact, not the little Fisher-Price boats we play with in the bath.

However, is it usual for a development process to last four years, in comparison to what has been done in the past in Canada or internationally?

**Mr. Yves Giroux:** I am no expert—

[*English*]

**The Chair:** Mr. Giroux, could you very quickly answer this one? I would appreciate it.

Thank you.

[*Translation*]

**Mr. Yves Giroux:** I am no expert in government procurement, but these data are based on the process that National Defence used for the type 26 ships. Unfortunately, I could not tell you whether it's usual, because we did not focus on that particular aspect.

**Mrs. Julie Vignola:** Thank you, Mr. Giroux.

[*English*]

**The Chair:** Thank you, Mr. Giroux and Ms. Vignola.

Now we will go to Mr. Green for six minutes.

**Mr. Matthew Green (Hamilton Centre, NDP):** Thank you very much.

Welcome back, Mr. Giroux. It's always a pleasure to have you here.

I'm constantly learning through these reports and these studies. This one for me is significant. There seem to be some significant questions. I know other people who might be tuning in will have questions in terms of the discrepancy.

Maybe I will revisit it, and I will start there about just drawing out the difference. The Department of National Defence will still estimate their costs running at \$50 billion to \$60 billion.

Do you expect DND to update their estimates based on your report?

**Mr. Yves Giroux:** They stated that they still stand by their initial amount, their estimate of 2017. A few days or weeks ago in anticipation or right after our report was tabled, they said that they still stand by that \$56 billion to \$60 billion for the 15 ships. My bet is that they will probably update it in a couple of months when it's probably less politically charged, but so far they stand by that estimate.

**Mr. Matthew Green:** I'm looking back at some previous documents back in 2015 when we had the five-year review of this program. Are these guys part of the national shipbuilding procurement strategy secretariat? Are they the project operations for this program?

**Mr. Yves Giroux:** I don't know about that specific question. Carleigh and Chris may jump in; they probably know more about that.

**Mr. Christopher Penney (Financial Analyst, Office of the Parliamentary Budget Officer):** Actually, I don't have an answer either.

Certainly, the Canadian surface combatant is part of the national shipbuilding strategy. As for which secretariat is involved, I'd have to look it up.

**Mr. Matthew Green:** I'm trying to get a sense for.... It's irreconcilable for me that they would do a cost analysis and not include the taxes; that is material and astounding. I'm wondering, just so that we're clear and on the record.... There's no credit system in which these taxes are recouped or not charged, right? There's no plausible scenario in which these provincial taxes are waived or not charged. Is that right?

**Mr. Yves Giroux:** That's right—certainly, not to my knowledge. If there is one, it involves billions of dollars over the lifespan of this project. It would be very useful for us to know if such a plan exists because, to my knowledge, there is no such scheme or arrangement.

**Mr. Matthew Green:** That, to me, is unconscionable, that they would just overlook that. When we talk about politically charged..., that feels like a politically charged analysis when you have that material non-disclosure within your bidding processes. That's one aspect in terms of the cost overrun and the dispute between you and the DND—I won't say between you and the DND—between the disputed numbers of the two organizations. The result is from the interpretations of the tax, but there are also some pretty complicated weight-based calculations, if I'm correct. Can you clarify how you played into the weight-based calculations and what the differences were between your calculations and the DND's?

• (1640)

**Mr. Yves Giroux:** Lightship weight is a very important parameter in our models. Apparently some stakeholders are saying that we overrely on this parameter, but we disagree with that, of course. It's important to note that in the costing literature—because we've looked at that—numerous studies identify the relationship between lightship weight and the construction cost of surface combatants as being the single most important factor. The approach we have taken also reflects best practices suggested by NATO and other independent organizations, such as the United States Congressional Budget Office.

**Mr. Matthew Green:** I'm not oversimplifying it. We've heard in previous testimony the discrepancies between the capabilities. I would think that the ambitious project that started out some years ago with these design elements—to try to cram all of this warfare capability onto one ship—would probably have an outstanding impact on the weight, cost and timeline analysis. Would that be accurate or fair to say?

**Mr. Yves Giroux:** I think it's a very accurate, very right analogy; it's probably a very good way of describing it.

**Mr. Matthew Green:** From your perspective, when you went down this path, did you receive any information that quantified or verified the need for this type of capability and design, or did you leave it up to the DND to assess the requirements?

**Mr. Yves Giroux:** Carleigh can probably clarify that point better than I could.

**Ms. Carleigh Malanik (Financial Analyst, Office of the Parliamentary Budget Officer):** We effectively did take the specifications as given and provided by the Department of National Defence. We are not capability experts, but of course, we do need to factor into the account that there are differences in capabilities that could explain the differences in cost.

**Mr. Matthew Green:** I think it begs the question—although this isn't for you to answer—about the need for these particular capabilities in the global theatre of defence or war. For me, I can't unpack this from the national shipbuilding strategy. I can't help but think about the cost overruns as having an effect and an impact on some of our other programs or, if we took a more astute approach to this, what that \$16-billion or maybe \$20-billion differential might look like if we were to apply it to other aspects of the shipbuilding strategy.

I do recognize that I'm at six minutes, and I'll respect that.

Thank you, Mr. Chair.

**The Chair:** Thank you, Mr. Green; I appreciate that.

Now we'll go to the second round. We have five minutes with Mr. Bezan.

**Mr. James Bezan (Selkirk—Interlake—Eastman, CPC):** Thank you, Mr. Chair.

I want to thank Mr. Giroux and everybody at the PBO for this report.

I guess the one thing that I'm trying to reconcile here is this: You looked at different types of ships, but did you drill down into what it's costing us, as Canadian taxpayers, based upon the way that we have the management and the contracting established and whether or not there's been a competitive process that is in the best interest of taxpayers to get the ships that we need for the Royal Canadian Navy?

**Mr. Yves Giroux:** There's a lot to unpack in your question. We approached the costing with a top-down approach using analogue ships, comparing what has been spent in other countries to procure similar ships, and taking that into the Canadian context, adjusting for productivity, the size of ships, and so on.

We didn't look at the differences and capabilities, but that's probably a big factor in the cost increase, compared to what it could cost. We also did not look at procuring these ships abroad and upgrading them to Canadian specificities because procuring them abroad was not within the scope of our study, but there would be savings—

**Mr. James Bezan:** I'm not suggesting at all, Mr. Giroux, about procurement.... I'm just saying a better competitive process, a better management system, right here in Canada so we can keep...because every time we turn around the costs of shipbuilding, but specifically the surface combatants, continue to rise exponentially.

**Mr. Yves Giroux:** That's a very good point. This project has seen delays and changes in specifications, but I think there's maybe an issue of governance because we have chosen the naval shipyard and the type of ship, and then the costs are almost by-products of these two decisions. Honestly I don't have an answer as to whether the competitive process needs to be improved or the type of specifica-

tions. We looked at the cost, but we didn't look at the governance of the project or whether something went wrong.

I think my colleague the Auditor General would probably be in a much better position to determine whether changes or improvements need to be made or should have been made to the process.

• (1645)

**Mr. James Bezan:** I appreciate that, and that's a question I'm going to have when we have her before committee.

There are some discrepancies when you're talking about the different values of ships—the 31e versus FREMM versus the surface combatant—and we always have Canadianization. You did talk about the statement or requirements that you got from DND on behalf of the navy.

The question comes down to—because you do have such a low value on the smaller frigate, the type 31e—how much are we giving up on capability and how much is that going to be putting our navy and our sovereignty at risk if we go to a small ship, versus having the surface combatants that can handle both anti-submarine warfare as well as air threats?

**Mr. Yves Giroux:** It depends whom you talk to when you ask that question. If you talk to the Naval Association of Canada they'll say the type 31e, for example, would be a significant loss of capabilities. If you talk to the Danes or the shipyard that's building these types of ships they say it's not the same capabilities, but it's still a fully capable ship. If you talk to the British they'll say it's a very good ship compared to what the alternative could be, especially if it's patrolling alongside bigger ships such as the FREMM or the type 26.

Not being a military expert myself, and not being an expert in military doctrine, I cannot say, but I've heard both arguments, saying it would be a terrible loss of capabilities, and saying that it would be a very capable type of ship, especially if we went for the mixed or the hybrid fleet that would be fully capable of doing what the navy needs to be done.

**Mr. James Bezan:** You talked about the FREMM, which both the Italians and the French have built, but you're using the Constellation class estimates coming from the U.S. Congressional Budget Office. I know I asked you this in the past, but why not use the hard numbers that came out of Italy and France that build dozens of these ships and have a lot of experience? You're using estimates coming from the States, which are based on the Arleigh Burke, an air destroyer.

**Mr. Yves Giroux:** I'll ask Chris if he can provide an answer to that question.

**Mr. Christopher Penney:** Certainly.



**The Chair:** Excuse me for interrupting, Mr. Penney. I'm wondering if you could put your answer in writing to the committee; that would be greatly appreciated. It's a good question, but unfortunately we're out of time.

Mr. Drouin, you have five minutes.

[Translation]

**Mr. Francis Drouin (Glengarry—Prescott—Russell, Lib.):** Thank you very much, Mr. Chair.

I will give the witness a few seconds to answer the question from the previous speaker, because it was a very good question.

[English]

**Mr. Christopher Penney:** There are a couple of reasons for using the Constellation class. The first is that it is the most recent adaptation of the FREMM. As you stated, the analogue approach is based on the Arleigh Burke vessel. This mirrors the approach of the Congressional Budget Office. It is a very good analogue, once proper adjustments are made. It is a general-purpose frigate, which is what the type 26 is intended for.

I should also note that we're not using the CBO estimates for our own estimates. We're not using their estimates as raw data; we are using the Arleigh Burke as an analogue. It is thus a similar approach to what the Congressional Budget Office undertook.

I believe that answers your question.

[Translation]

**Mr. Francis Drouin:** Thank you very much.

Mr. Giroux, thank you very much for appearing before our committee.

I have a question about the hybrid approach, meaning that we might acquire three type 26 ships and other ships like the FREMM or the type 31e. How do you analyze those costs?

What I am trying to get at is that, for any organization buying 15 ships rather than three, there would be a price difference. How did you go about determining what that difference is?

• (1650)

**Mr. Yves Giroux:** That really is a good question.

We estimated the costs that have already been committed to build type 26 ships, at least up to this point. We then estimated the costs for building three type 26 ships.

We also included the costs of restarting a competitive procurement process to choose another type of ship. Those costs would include updating a shipyard in order to retool the equipment and the shipyard in order to build another type of ship.

So we included all the costs we would have to incur to continue building the ship, and also those that we would have to incur if we were to start almost at square one again, in terms of productivity and expertise, in order to build a different type of ship. That's how we were able to produce hybrid cost estimates for the FREMM and the type 31e ships.

**Mr. Francis Drouin:** But you did not have any discussions with the company to find out whether the cost would be the same for

building three ships as opposed to 15. I'm thinking of economies of scale, for example. Building an infrastructure for 15 ships costs much less than doing the same thing for three ships. So I'm sure that there would be quite a significant increase, correct?

**Mr. Yves Giroux:** We accounted for that in our cost estimates. We also accounted for the fact that, in general, when building ships, the first is much more expensive because we do not have the expertise and we can't achieve any economies of scale. As the ships are built, we achieve the economies of scale and reach the optimal situation usually around the ninth ship. In our scenario, we were building a new type of ship starting with the fourth ship, so that we are starting almost from square one in terms of productivity.

We also accounted for the fact that retooling would be needed in the shipyard in order to change the production chain.

**Mr. Francis Drouin:** You also mentioned that you used the TruePlanning software. In your report, you acknowledge that the software produces estimates that can be plus or minus 20% of the actual costs.

What makes you say that?

**Mr. Yves Giroux:** We used a model based on different parameters to estimate the total cost of a ship procurement program. We used it to determine, in retrospect, what the results would have been if we had used that method for the costs that are already known. As an example, we considered procurement programs that have already taken place elsewhere in the world. In certain cases, the costs are an additional 20%, in other cases the costs are negative, or -20%.

That is how we estimated our confidence interval. The cost estimates we show in our report are the midpoint of our estimates. Possibly, there may be an additional 20% or savings of 20%. Our model shows that midpoint, using the figures in the report.

**Mr. Francis Drouin:** Let me make sure I fully understand. Using the example of the type 26 ships, the worst-case scenario would be that the costs are 20% higher than \$77.3 billion and, in the best scenario, the costs would be 20% lower than the \$77.3 billion.

Is that what you said?

**Mr. Yves Giroux:** That is exactly what I said.

**Mr. Francis Drouin:** Thank you.

[English]

**The Chair:** We will now go to Ms. Vignola for two and a half minutes.

[Translation]

**Mrs. Julie Vignola:** Thank you very much, Mr. Chair.

My last question was about the four years that this has taken in order to design the process. Let's say the government decides to completely change the model and to procure the FREMM.

Could any parts of that four-year process be used again with the FREMM or would they have to start from scratch once more?

Did you do any calculations for that?

**Mr. Yves Giroux:** Our assessment was that, if the decision to start again was taken in October, it would take about four years to get more or less to the point where we are now, in terms of the tendering and design process. Some parts could probably be used again, but I am not convinced that there would be a huge number of them. If there are a lot and the process can be accelerated, so much the better, the costs will be reduced, but I don't believe that that is likely to be the case.

• (1655)

**Mrs. Julie Vignola:** In terms of the skyrocketing costs, we can understand that it's generally due to inflation. However, I imagine that opinions about armaments change and that the functions of the ships are also a consideration.

What space in the budgets did the armaments on each of the ships take up?

**Mr. Yves Giroux:** Since defence is an area with a lot of secrets, for obvious reasons, inflation is a little greater. Not many information items or best practices are exchanged. It's not like other areas, where you can easily buy the competitors' products, disassemble them and see the improvements that can be made to our own assembly processes, as a result of what we discover.

That's one of the reasons for the inflation in defence matters. It's difficult to adopt best practices from others, or at least to adopt them as easily as can be done in other manufacturing sectors.

Armaments are an important factor, of course. The other factor is construction materials. These materials are often very specialized and they cannot be easily reused for other purposes.

[English]

**The Chair:** Thank you.

Now we have Mr. Green for two and a half minutes.

**Mr. Matthew Green:** I still can't seem to get off the tax thing. I can't share with you how much that's bothering me, so I'm going to cut to the chase here.

What information did DND provide to you to assist with your report, and did they withhold any information, in your opinion?

**Mr. Yves Giroux:** In my opinion they provided all the information that we needed.

There was a lot of back and forth, of course, because it's not a simple project. We cannot just get a two-page document or an Excel spreadsheet, but they provided all the information that we needed.

We didn't get the contracts, because we didn't need them. We had all the information that was relevant for the determination of the cost that we needed to do for this committee.

In my opinion, DND was as forthcoming and open as one could have expected in the provision of information for this report, and I see Chris and Carleigh. They're not doing something like that, so I think that's an accurate description.

**Mr. Matthew Green:** No, that's fair.

Just to play this out, if we were to receive your report, not take action, accept their estimates, we go ahead with it, and four years down the line there's an "oops, I guess we were wrong", Canadians are on the hook for the \$20-billion overrun. Where's the accountability?

**Mr. Yves Giroux:** Accountability rests with those who ultimately make the decisions.

**Mr. Matthew Green:** That's a great answer. I'll accept that.

You noted that your estimates account for the differences and...an approximate 55% unit labour cost premium. How did your office calculate the anticipated labour productivity at the Irving shipyard?

**Mr. Yves Giroux:** It's not based on any wrongdoing or anything against Canadian shipyards. It's based on the fact that Canadian shipyards don't have the same experience in building military vessels as, for example, the U.S., where it's almost a constant production line, where it churns out military vessels on—

**Mr. Matthew Green:** What would be our comparative scale in terms of production, because again, we're hearing about capabilities. It's clear to me that even with this \$80-billion investment, when we're up against countries that are spending in the trillions of dollars, this is a drop in the bucket globally.

In terms of it being a sovereign threat, does our sovereignty rest on the procurement of these vessels?

**Mr. Yves Giroux:** It's not for me to answer that question. Personally, that's an interesting question, but I'll let better, brighter minds than mine answer that question, especially people who are more versed in military doctrine.

• (1700)

**The Chair:** Thank you.

We will go to Mr. McCauley, for five minutes.

**Mr. Kelly McCauley (Edmonton West, CPC):** Thanks, everyone, for joining us.

Mr. Giroux, you mentioned that you're not a specialist in government procurement. I would put forth that the government is not a specialist in government procurement either.

I'm curious. How much are we at for sunk costs right now?

**Mr. Yves Giroux:** That's an interesting question. I'm going through my notes here. We have a lot of information from DND, but because some of it is commercially sensitive, there are some types of information and data that we cannot release publicly. The ballpark on our sunk costs so far is unfortunately part of that commercially sensitive information provided to us by DND.

**Mr. Kelly McCauley:** How much are the cost overruns, or the added costs due to delays, and how much to added costs, such as weight or other changes made by DND?

**Mr. Yves Giroux:** In general, if a two-year delay had pushed back all production, we'd expect the number to be between \$4.4 billion and \$4.8 billion in terms of additional costs, but based on the most recent figures we have from DND—

**Mr. Kelly McCauley:** But delays to date, not additional delays, because I recall sitting in committee a couple of years ago, hearing we were going to start cutting steel in 2023. The minister, at the time, even stated we'd have ship in the water in 2025, which is obviously not going to happen.

How much of this cost is from these continued delays from day one?

**Mr. Yves Giroux:** Do you have that information, Carleigh?

**Ms. Carleigh Malanik:** We don't have those explicit numbers split out, unfortunately. It's potentially something we could go back and do. I would equate it roughly to what the one-year and two-year delay costs would be, because that's roughly what the delays were.

As for the lightship weight increase, it did increase the cost, but again, I do not have that exact number available.

**Mr. Kelly McCauley:** Is your pricing based on the ships being in water, or is that based on delivery before becoming operational, which of course takes a run-up of another year or two years?

**Mr. Yves Giroux:** That's based on delivery to the Royal Canadian Navy, and also being usable, to the best of my knowledge.

**Mr. Kelly McCauley:** I would like to follow up on what Mr. Green was saying about the difference of your pricing, their pricing and taxes. There was a comment about weight. DND says its costing is still valid, but there's still the weight issue.

Is there disagreement with the 7800 lightship weight that you're using? Is there a different weight being used, or is the projected weight the same as yours, but your costing is out?

**Mr. Yves Giroux:** We're using the lightship weight based on information provided to us by DND. We did not just make this up. That's a lightship weight that's based on—

**Mr. Kelly McCauley:** You work off the same lightship weight, but DND is saying your interpretation of the added cost in lightship weight is different from DND's.

**Mr. Yves Giroux:** I hope—

**Mr. Kelly McCauley:** This is interesting because DND told me years ago they had already factored in higher costs from a higher weight. Now they're saying that the higher weight will not be a higher cost.

**Mr. Yves Giroux:** That's a mystery to me. As a taxpayer, I hope that their cost estimate ends up being the right one, but I'm very confident that our cost estimate, the \$77 billion, is the right one, the accurate one.

**Mr. Kelly McCauley:** Okay. The life-cycle cost, the O & S, is going to be perhaps \$250 billion to \$300 billion. How do those costs match up to “Strong, Secure, Engaged” numbers or compared to what we currently have set aside for O & S for the whole of our armed forces?

**Mr. Yves Giroux:** I haven't looked at the operations and maintenance costs for these surface combatants, but it's true that they add up to a significant portion. They're very likely to be way more than the acquisition costs. I don't have the numbers as to what proportion of the overall defence budget they would be, unfortunately.

● (1705)

**The Chair:** Thank you, Mr. Giroux, and thank you, Mr. McCauley.

We'll now go to Mr. Jowhari for five minutes.

**Mr. Majid Jowhari (Richmond Hill, Lib.):** Thank you, Mr. Chair.

Welcome back, Mr. Giroux, to you and your colleagues.

I'd really like to bring the focus into the hybrid model and really probe into three areas: the alignment of that model with the overall strategy; the factor of economies of scale, as well as the total cost of the ownership over the longer term; and, finally, capacity building.

Let me start with the alignment. Do you think the hybrid model that's being proposed or was studied is actually aligned with the strategy that DND has and has presented in its NSS?

**Mr. Yves Giroux:** That's a question, really, that DND would probably be much better to answer, although I can probably guess what their answer would be. I would say that the U.K. Royal Navy is envisaging something along the lines of a hybrid model where they will have some type 26, and also some smaller frigates, type 31e, primarily because, my understanding is, of cost concerns.

**Mr. Majid Jowhari:** Thank you.

Let's touch on the economies of scale. Do you believe that, as we build more of the type 26 model, the actual cost of the ship goes down and just by building three and then going to that hybrid model, the overall costs would be more? Did you take the economies of scale into account when you were building your cost model for the type 26?

**Mr. Yves Giroux:** That's a good point. We did fully take into account the economies of scale and the increase in productivity as the shipyard gains more experience, and the navy gains more experience, with these ships.

If we were to go with the full fleet of 15 type 26, the cost that we have in our report takes into account the economies of scale. Going with 15 FREMM or 15 type 31e takes into account the economies of scale, and the same with the hybrid fleet, where it's three type 26, and either 12 FREMM or type 31e. It all takes into consideration the fact that we have small economies of scale for type 26, and we have to start from scratch in the alternate design, and we have economies of scale as the shipyard becomes more adept at building these types of ships. That's all taken into consideration.

**Mr. Majid Jowhari:** Thank you.

I know you just said in your comments that you haven't taken a look at the long term and the total operating costs, but having a little bit of a program management background, when I look at any type of project I look at the long term. What are your thoughts around the cost of the ownership of a hybrid type of fleet, as opposed to one type of fleet?

**Mr. Yves Giroux:** It's certain that having two sets of spares to maintain and, as somebody pointed out to me a couple of days ago, on both coasts, it adds to the costs. That being said, if you have a lower-cost type of ship, usually operation and maintenance costs are also proportionately lower, which could offset the additional cost of having two types of ships in the same fleet. It could or could not. That's something that would need to be looked at in more detail if there was one option that was favoured over the others.

**Mr. Majid Jowhari:** Having learned from COVID-19, the manufacturing of vaccines and what happened over the last 10 years, would you suggest for us to look into another aspect of this project with the fact that we are building in-home capacity from a longer strategic point of view, so we are not caught in the same position as we were with the manufacturing of a COVID-19 vaccine?

**Mr. Yves Giroux:** That's a very good question. I think that's a central point of the national shipbuilding strategy. That's a decision, as I said before on other aspects, for brighter minds than mine to make. It's for people like you elected by Canadians to make these trade-offs, but I agree with you. It's a very important point to take into consideration.

• (1710)

**Mr. Majid Jowhari:** Let me close by asking you the following question.

What are the economic job impacts if we look at the hybrid model and outsource some of these ships to other countries?

**Mr. Yves Giroux:** In all of our scenarios in our report, the ships would be built in Canada, so there is no scenario under which ships would be built abroad. All the ships would be built in Canada even under a hybrid scenario.

**The Chair:** Thank you.

Mr. Bezan, you have five minutes.

**Mr. James Bezan:** Thank you, Mr. Chair.

We talked about the management of the contract on surface combatants, and we have alluded to the governance structure. We've seen many delays in the construction of the surface combatant. Now we're saying that it's going to be potentially seven years to get the first ship in the water. I think everybody's concerned about that.

We saw the surface combatant from what the original thought process and capabilities were. It was supposed to be a 5,400-tonne ship, and now we're up to 7,800 tonnes.

How much has the governance and the moving target in that statement of requirements changed over time contributed to this escalating cost, and how do we fix it so we can get a handle on it so we don't see these continuing to escalate going forward?

**Mr. Yves Giroux:** The short answer is that I don't know the extent to which governance has contributed to this; however, choosing a ship that has not yet been built anywhere increases the risk. That's probably one important aspect. Choosing a design on paper as opposed to choosing another type of ship that had already been built and for which costs to a certain extent were known would probably have reduced the risks somewhat, but not entirely. It all depends on the specifications that the Royal Canadian Navy has and the tailoring of that other ship that would have been made.

With respect to governance, that will be a very good question for specialists in that area to look at, notably the Auditor General. Like you, I'm concerned about the cost increase of this type of procurement, because we're talking dozens of billions of dollars in increase when it comes to cost, and there doesn't seem to be a clear rationale, at least not one that's obvious to me when it comes to explaining these cost increases.

**Mr. James Bezan:** Whether it's mismanagement by the Liberal government or whether it's ongoing delays and moving targets creating these increased costs, you can't say how much each type of in-decision has created increased cost because of the delays or changes of design. There's a whole question about the life-cycle cost, which you didn't even look at. You weren't asked to, I know that, but when we start looking at life-cycle costs, they're going to be exponential when the taxpayer gets hit with the bill.

**Mr. Yves Giroux:** I can't say mismanagement at all. What I can say is misalignment of incentives. You ask people who will not be in charge of paying what they want. Of course, they will want the best for themselves and for the generations to follow, but the people who have to make the decisions are not experts in that specific area, and they don't have as clear an idea as to the costs of this or the alternatives.

The incentive alignments are not perfect, to say the least.

**Mr. James Bezan:** As we go forward, I am a fan of making sure that we get the navy what they need—not necessarily what they want, but what they need. Because of the size and scope of our navy, we aren't going to have the same economies of scale the Americans have, for example. How many Arleigh Burkes did they build? It was in the fifties or higher, I believe. They have economies of scale with all their ships, and they're gearing up to have a 330-plus ship navy.

Then we also have to look at our adversaries. We know that the Russians have really increased capabilities in their navy in recent years, especially in their submarine fleet. Then you look at what's happening with mainland China and the People's Liberation Army Navy. The threat environment has increased, and we need to have capability to match it on both the east and west coasts, never mind the Arctic. At least we're getting the AOPs up there.

What are the things you would recommend? I know you gave three options.

I look at the one option, which is that you build the first three surface combatants and then you move to the FREMM design. The difference there is not even \$7 billion. That could easily be blown through just in the Canadianization of the FREMM and trying to match up capabilities on the surface combatants to the FREMMs.

Did you do that type of analysis, or how do we make the surface combatant more comparable to the FREMM with the capabilities onboard?

• (1715)

**Mr. Yves Giroux:** Unfortunately, I don't have the mandate to look into the difference in capabilities and I don't have the expertise. Even though Carleigh and Chris are very smart, we don't have that capacity. I'd say, however, that at \$77 billion for 15 Canadian surface combatants, I am worried that the navy may get these 15 ships, but that the cost might be having to forego other types of ships that would be beneficial for Canada's defence at the same price tag.

For example, for \$77 billion we get 15 ships under the current procurement program. Maybe there is a way to get smaller ships or different ships, but for the same price having submarines or other types of ships that would be beneficial for the navy and for Canada's sovereignty.

However, I cannot pronounce on this and the mix of these different ships, because I don't have the expertise in military needs and military doctrine. Those, though, are the types of question that I think are worth asking.

**The Chair:** Thank you, Mr. Giroux, and thank you, Mr. Bezan.

We'll go to Mr. Weiler for five minutes.

**Mr. Patrick Weiler (West Vancouver—Sunshine Coast—Sea to Sky Country, Lib.):** Thank you, Mr. Chair.

I'd also like to thank Mr. Giroux and the other esteemed witnesses we have taking part in our committee meeting today.

I want to touch on some things that were raised in the Naval Association of Canada response report that was submitted as part of the study.

They mention that:

In their 2017 study on the subject, PricewaterhouseCoopers...concluded that the local economic and tax benefits would allow Canada to build the CSC for 13% less than had they been ordered from a European yard. The reason for this is clear. While the need to retool the Canadian shipbuilding industry may create inefficiencies and drive up costs in the short and medium term, the overall economic and tax benefits compensate the government for that premium. Irving Shipbuilding, for instance, calculates that one-third of its labour costs comes back to the federal and provincial governments in taxes on wages alone.

I think you spoke a little bit to these efficiencies when you mentioned that after the fourth ship is built, we would start to see some of those.

They also say that:

...there is a great deal more complexity behind the economics and strategic value of shipbuilding than such simple cost comparisons tend to yield.

They add that:

The...rationale for the NSS was to ensure that the defence dollars spent would be sunk back into the Canadian economy.

I mention this because Seaspan's operations are just outside of my riding. I have many constituents who work there, and while they're not part of delivering or producing the CSC, Seaspan is a key beneficiary in the NSS and is delivering several ships as part of that strategy.

In your report, you note that there are several costs that you can't or chose not to take into account. Given that the CSC program was designed in part to develop a made-in-Canada industry for future domestic shipbuilding, did you consider the losses to local economies and future procurement if the development of a made-in-Canada shipbuilding sector were not expanded?

**Mr. Yves Giroux:** That's an interesting aspect. In all the scenarios in our report, all the ships would indeed be built in Canada. The loss of Canadian expertise or strategic aspects would not be significantly different because the ships would all be built domestically. What we looked at was the difference in cost of the different designs that could have been chosen or that could be chosen if we were, for example, to go with a hybrid model.

With respect to the strategic objective of having domestic shipbuilding capacity, that's outside of the scope of the report, and these are aspects that are difficult to put a price tag on, but that are important considerations for decision makers like yourselves, members of the committee. Again, we didn't touch that in the report. It's important to keep in mind that, regardless of the type of ships that would be chosen, the assumption in our report is that they would all be built in Canada. We did not consider outsourcing to other countries or buying ships that would be built abroad.

• (1720)

**Mr. Patrick Weiler:** Thanks for that answer.

Does your report take into account the economic losses that the further delays you outline would have on the Canadian economy?

**Mr. Yves Giroux:** No, the scope of the report was not to determine or quantify the economic benefits to the broader economy or the losses of a delay. There would be costs incurred if we were to cancel type 26 and start all over from the beginning of the competitive process, but we did not factor the cost to the Canadian economy at large of a four-year delay or of switching between different types of designs.

**Mr. Patrick Weiler:** In the AG report, it states that the government took steps to minimize the expected reduction activities at Irving, amongst other actions, by building two additional Arctic and offshore patrol ships. These actions were taken to avoid delays in the CSC that could arise from the shipyard having to rebuild its workforce and were estimated to save \$890 million.

With this in mind, would it be fair to say that there would be economic impacts under scenario one and two due to possible interruptions in production?

**Mr. Yves Giroux:** It's clear that under scenario one, where we would stop all activities on type 26 and start the procurement process from the start, there would certainly be losses. That's why we went for a hybrid fleet, where we would continue the production of type 26, and in the meantime, while the ships are being built, then the government could launch another process and choose a different type of ship to minimize the losses to the shipyard and to the economy. That's why we went with a model where there would be a hybrid fleet.

**Mr. Patrick Weiler:** Thank you, Mr. Giroux.

**The Chair:** Ms. Vignola, you have two and a half minutes.

[*Translation*]

**Mrs. Julie Vignola:** Thank you very much, Mr. Chair.

Mr. Giroux, just now you said that your focus was on ships built wholly in Canada, as is the case currently.

Did you also focus on a single shipyard?

**Mr. Yves Giroux:** That is a good question.

Let me ask Ms. Malanik or Mr. Penney to help me with it.

**Mr. Christopher Penney:** Yes, our assumption was that all construction activities would be done at the Irving shipyard in Halifax.

**Mrs. Julie Vignola:** In your opinion, would the costs be different if more than one shipyard was used to build the type 26 frigates?

**Mr. Yves Giroux:** That is a good question.

Generally, if construction work is divided among several shipyards, there may well be a loss in productivity. However, giving specialized work to the shipyards in question could allow for economies of scale, for example, if each shipyard looked after a specific aspect of the construction.

It would depend on the way in which the work was divided.

**Mrs. Julie Vignola:** If the work was divided into specialized areas, as you are suggesting, could it save time too?

**Mr. Yves Giroux:** That is very possible. Dividing the work among a number of shipyards could speed up delivery, although the costs may suffer as a result. Everything depends on the way in which the work is divided, as I said.

**Mrs. Julie Vignola:** Chantier Davie achieved success in 2015, the year in which it won the prize for the best shipyard in North America.

Does the fact that the shipyard is not currently in the running have any impact on the costs?

**Mr. Yves Giroux:** We did not look at scenarios where a shipyard other than Irving, or a number of shipyards, would be involved. So unfortunately, I am not able to answer that question with any certainty.

● (1725)

**Mrs. Julie Vignola:** Thank you very much.

Earlier, my colleague was talking about the Shipbuilding Association of Canada—

[*English*]

**The Chair:** Ms. Vignola, please be very quick.

[*Translation*]

**Mrs. Julie Vignola:** Yes, Mr. Chair.

He mentioned that the type 31e ships could not be used for combat activities that are considered essential in Canada.

What kind of combat are we talking about?

Is that a question you looked at?

**Mr. Yves Giroux:** Yes, indeed, the capabilities of the type 31e ships are not the same as for the others. They are designed to support larger ships, but they are warships that can certainly do a good part of the work. That was certainly emphasized to us by Odense Maritime, which builds some of those ships and which is very enthusiastic.

But you will get different answers to that question depending on whom you ask.

**Mrs. Julie Vignola:** Thank you.

[*English*]

**The Chair:** Mr. Green, you have two and a half minutes.

**Mr. Matthew Green:** The office of the PBO noted that in 2017 the U.K.'s Royal Navy awarded a contract for 3.7 billion pounds to BAE Systems for the manufacture of the first three type 26 ships. Based on that estimate, the contract would suggest a cost of about \$31 billion for a fleet of 15 ships. This comparison assumes a linear relationship between the number of ships and the cost. That seems pretty basic to me. But according to this, you have stated that BAE Systems are “more experienced” and have “greater efficiency and productivity”.

I'll cut right to the chase here. Why is Irving shipyard less efficient and productive than BAE Systems shipyards? Were these productivity theories applied to some of the other potential procurement applicants?

**Mr. Yves Giroux:** First of all, when looking at costs of other shipbuilding or other procurement processes abroad, we have to be careful to ensure that we're comparing the same costs. Very often these other costs don't include procurement and the work that has to be done before the steel starts being cut. They tend to underestimate the total costs. That is an important aspect.

The other aspect is that because these other shipyards abroad produce more of these ships—that's generally speaking and not specifically that type of ship—they can have higher productivity, which is not the case in Canada.

That's a very quick answer to the question.

**Mr. Matthew Green:** I don't know if this is something you'd have come across, but do we know what Irving's profitability was last year?

**Mr. Yves Giroux:** I don't know.

**Mr. Matthew Green:** What's the size and scale of Irving versus the other shipbuilding companies?

**Mr. Yves Giroux:** I don't know. I don't have that information off the top of my head. We could get back to you on that, though.

**Mr. Matthew Green:** It's just the scope and the scale in which these cost overruns are in leaps and bounds going beyond what seems to be reasonable and what seems to be in the order of magnitude of understandable.

Again, I'll reiterate just as a comment, not for you to comment on, that idea that they would omit taxes is just such a basic and glaring omission. You talked about incentives. I think from this committee we're going to have to find recommendations that are going to have better systems in place, that have accountability over the procurement of our military spending, which, quite frankly, seems to be running completely out of control on a project like this.

I think that's my time. I'll end with that comment and hope that we can find some productive solutions.

**The Chair:** Thank you, Mr. Green.

Mr. Paul-Hus, you have five minutes.

[*Translation*]

**Mr. Pierre Paul-Hus:** Thank you, Mr. Chair.

Mr. Giroux, you mentioned that the Department of National Defence was supposed to review the costs of this project.

Do you not think that it has already done those estimates but is waiting before it makes them public because the figures are much higher than those that you have presented to us?

**Mr. Yves Giroux:** That is a valid hypothesis. Unfortunately, nothing allows me to confirm or deny it. I rely on the good faith of the senior officials and ranking officers in the Department of National Defence.

**Mr. Pierre Paul-Hus:** Thank you, Mr. Giroux.

Mr. Chair, from the outset, I have been listening attentively to the questions dealing with the cost of Canadian warships and to the answers that the Parliamentary Budget Officer is providing. I also have in my hand the 2019-20 departmental results report from Public Services and Procurement Canada. It often mentions expenditures related to naval construction. According to what I have been told, the minister is not able to come and testify before the deadline for the supplementary estimates (C). The Parliamentary Budget Officer is telling us about billions of dollars in expenditures, for which the minister is directly responsible. We certainly have questions for her about this.

I would like to introduce a motion that is directly related to the topic we are discussing today. It reads as follows:

That the Chair of the Committee writes to the Minister of Public Services and Procurement on behalf of members of this committee in order to express their serious concerns in relation to the Minister's lack of availability to testify before this committee and answer their questions related to procurement, including the Canadian Surface Combatants, during the study of the Supplementary Estimates (C) 2020-21.

• (1730)

[*English*]

**The Chair:** Thank you, Mr. Paul-Hus.

Mr. Paul-Hus has the floor and has put forward a motion. Is there any discussion on that motion?

[*Translation*]

**Mr. Pierre Paul-Hus:** Absolutely.

[*English*]

**The Chair:** Mr. Drouin, go ahead.

[*Translation*]

**Mr. Francis Drouin:** Basically, Mr. Paul-Hus is asking that the committee invite the minister prior to the tabling of the supplementary estimates (C). Her appearance would be in connection with the Parliamentary Budget Officer's report, is that correct?

**Mr. Pierre Paul-Hus:** Yes, that's right.

[*English*]

**The Chair:** Thank you.

I see Mr. MacKinnon is next, then Ms. Vignola, and then Mr. Green.

[*Translation*]

**Mr. Steven MacKinnon:** We have not received the written version of the motion. It is my understanding that my colleague Mr. Paul-Hus is introducing a motion to schedule the minister's appearance for the shipbuilding study.

I don't see how the motion is related to the study or to our business today.

**Mr. Pierre Paul-Hus:** Mr. Chair, I would like to speak.

[*English*]

**The Chair:** Mr. Paul-Hus, please go ahead.

[*Translation*]

**Mr. Pierre Paul-Hus:** Thank you, Mr. Chair.

On the contrary, Mr. MacKinnon, it is directly related to the astronomical costs we are seeing for the surface combatant project. The supplementary estimates (C) contain links to the budget for which the Minister is responsible. However, we are never able to ask her questions. With this motion, we are simply requesting that the Chair write to the Minister and ask her to appear before our committee.

For several months now, Minister Anand has been unconcerned with committee business, with her committee. So we would like the Chair to send her a letter and kindly ask her to appear before the committee. We haven't seen her in a long time and we miss her. We have a number of questions for her.

**Mr. Steven MacKinnon:** First, I don't see the connection between the motion and what we are doing today. Second, my colleague talked about astronomical costs. As the Parliamentary Budget Officer just stated, the Conservatives had estimated that it would cost \$26 billion. I think the member is on a slippery slope in terms of costs.

Finally, I understand that we are already scheduling a meeting with the Minister as part of the supplementary estimates study. So I don't see any need for this motion. Again, I'm wondering what the connection is between what we're doing today and inviting the minister to provide some rationale on spending as part of a shipbuilding study.

**Mr. Pierre Paul-Hus:** Mr. Chair—

[*English*]

**The Chair:** Thank you.

When I look at the motion before me, the issue is with regard to writing a letter to the minister asking her to attend the meeting on issues of supplementary (C)s.

When we look at the supplementary (C)s, the Canadian surface combatants are contained within that. Therefore, I see that as being related. Thus, I'm ruling that this is in order.

● (1735)

**Mr. Steven MacKinnon:** On that, if I might politely suggest, Mr. Chair, that you simply turn to the clerk and ask him if things are going well with respect to scheduling the minister for her supplementary (C)s appearance, I think we could avoid a lot of nonsense here.

**The Chair:** On the issue of the minister, I can tell you that we have tried to have the minister. We have addressed the issue in previous meetings. Mr. MacKinnon, a number of meetings ago we talked about sending a letter to the minister. You indicated then that you would discuss, as best you could, asking the minister to attend.

Our discussions with the minister are such that her attendance would be on a certain date. We asked if she could attend when we were not sitting and she could not, so my understanding of this letter is that it is putting that issue in writing.

With that said, perhaps the analyst would like to make a comment.

**Ms. Raphaëlle Deraspe (Committee Researcher):** Thank you, Mr. Chair.

As members will recall, they agreed to study the supplementary (C)s with the departmental results reports, which do have some elements linked to the national shipbuilding strategy.

**The Chair:** Thank you for that, Raphaëlle.

We will now go to Ms. Vignola.

[*Translation*]

**Mrs. Julie Vignola:** I know that, like all ministers, the Minister is very busy. Nonetheless, I think it's important that we are able to speak with her so that she can shed light on some of the issues in the supplementary estimates (C).

I will probably be told to ask our colleagues to stop inviting her to appear before their committee. However, we live in a democracy. The role of every member, beyond his or her party, is to understand where the taxpayers' money is going, the money collected through taxes. To do that, it's important that we be free to ask questions of the people responsible, regardless of party.

[*English*]

**The Chair:** Thank you, Ms. Vignola.

Mr. Green, I saw that your hand was up. It went down for a second. I see Mr. Drouin, as well, but I will go to you first, Mr. Green.

**Mr. Matthew Green:** I will, with integrity, share with you that I changed my mind and I put it back on, so I will cede the floor to Mr. Drouin. It wasn't a technical glitch. I changed my mind, so I'll go back on the speakers list after Mr. Drouin.

Thank you for that, though.

**The Chair:** Mr. Drouin.

**Mr. Francis Drouin:** Mr. Chair, I'm wondering, through you or through the clerk, if we've had other information as to whether the minister can attend before the date that she—I'm assuming—communicated to the clerk.

I'll agree with my colleague, Mr. MacKinnon, that we're just spinning our wheels here. We can write another letter but I would assume the answer will be the same.



On that, nothing is stopping members from asking questions about the supplementary (C)s on the date the minister has provided to this particular committee. We are only sitting for two weeks in March, and I think that's the issue here. If we were sitting for four weeks, it would be a lot easier to find scheduled time.

We're going to send a letter, that's the point. I'm assuming we're going to get the same answer, but hey, if that's what the committee wants to do, I'm okay. However, I will disagree with our strategy here.

**The Chair:** Thank you, Mr. Drouin.

Mr. Green.

**Mr. Matthew Green:** I'll pick up where my friend left off.

I think if it's the will of this committee that we put it out, and if the minister continues to not make herself available, then that will be duly noted. I think that when a committee calls for a witness, whomever it may be, it's incumbent.... If it's the will of this committee that this is the direction we go in, the minister treating it as an administrative or scheduling inconvenience is not really our problem, quite frankly.

I'm ready to vote on this. If it's the case that the minister can't find the time to show up at the committee she is responsible for, on this particular issue, so be it.

● (1740)

**The Chair:** Thank you, Mr. Green.

Mr. Paul-Hus, I believe you have the last hand up.

[*Translation*]

**Mr. Pierre Paul-Hus:** Thank you, Mr. Chair.

As I mentioned earlier, the motion very clearly includes enough information related to the topic we are discussing today. The Parliamentary Budget Officer has produced an excellent report. We have many questions about shipbuilding and how it fits into Public Services and Procurement Canada's 2019-20 departmental results report, which refers to shipbuilding-related costs.

Once again, the Minister did not find time to appear before the committee to answer questions about the report. It's simply a matter of inviting the minister nicely. As parliamentary secretary to the Minister, Mr. MacKinnon likes to speak on her behalf, but the fact remains that she is the Minister. So we would like her to appear before us to answer our questions, plain and simple.

[*English*]

**The Chair:** Thank you, Mr. Paul-Hus.

I see that Mr. MacKinnon's hand is up.

[*Translation*]

**Mr. Steven MacKinnon:** She is indeed the Minister and she has already specifically shown that she is available. Her office is planning her appearance before the committee right now. We all look forward to hearing what she has to say.

I want to assure Mr. Paul-Hus and all my colleagues on the committee that the Minister has a very good handle on her files. So members will have to do their homework.

In my opinion, we should just go ahead with a vote.

Personally, I'm going to oppose this unnecessary, dilatory motion, which is only intended to cause the Minister some slight embarrassment. I will oppose the motion because the Minister has been very forthcoming, whether for our committee or other parliamentary committees. She will be more than happy to brief us on the supplementary estimates.

[*English*]

**The Chair:** I appreciate everyone's comments.

Seeing no more hands up, I am asking all those in favour of this motion to please raise their hands.

**The Clerk of the Committee (Mr. Paul Cardegna):** Mr. Chair, pursuant to the order adopted by the House in January, if a motion is not adopted unanimously or on division, it has to be done by recorded division. Do you wish me to call the roll?

**The Chair:** Yes, please do.

**Mr. Han Dong (Don Valley North, Lib.):** Chair, may I say something with regard to the motion?

**The Chair:** We're actually in the vote, so I'm going to rule no, Mr. Dong.

**Mr. Han Dong:** The only reason I'm asking for one minute to explain why I was voting this way is that I wasn't expecting that we were going to be voting on this particular issue. I'm not a permanent member of the committee, so I ask for your indulgence to give me one minute to speak to it and explain myself.

**The Chair:** Mr. Dong, you do not have a vote in this vote. Only sitting members can do that.

**Mr. Han Dong:** Okay.

**The Chair:** Mr. Clerk.

**Mr. Han Dong:** I have a point of order, Chair.

I am under the impression I'm subbing for Irek, who's a permanent member.

● (1745)

**The Chair:** I apologize, Mr. Dong. I was under the impression that Mr. Fragiskatos was that individual, so I apologize for that.

**The Clerk:** Mr. Chair, I'm sorry. I haven't been informed of any substitution today vis-à-vis the Liberal Party. I don't know who's replacing Mr. Kusmierczyk. I haven't been informed by the chief government whip and it is my understanding that this is the protocol pursuant to the order adopted by the House.

I know Mr. Fragiskatos is here. I know Mr. Han Dong is here and Mr. Bezan was here as well, but I haven't been informed officially by the Liberal Party as to who is actually replacing Mr. Kusmierczyk, which is why I didn't call either Mr. Dong or Mr. Fragiskatos.

I would appreciate some clarity if there is somebody who's actually replacing him, but I haven't been informed of this.

I think Mr. Fragiskatos would like to intervene, Mr. Chair.

**The Chair:** Mr. Fragiskatos.

**Mr. Peter Fragiskatos (London North Centre, Lib.):** Thank you, Chair.

Colleagues, I was here from 4:30 to 5:30 for Mr. Kusmierczyk, not realizing that Mr. Dong had apparently been here for Mr. Kusmierczyk as well. I leave it with the committee. I don't know what time the motion was put forward but, on my honour, if it was prior to 5:30 I was here and prepared to vote.

**The Chair:** We're going to suspend for a second. I need to talk with the clerk.

• (1745) \_\_\_\_\_ (Pause) \_\_\_\_\_

• (1745)

**The Chair:** The clerk has not been notified of any replacement at this point, and therefore neither Mr. Dong nor Mr. Fragiskatos is eligible to vote at this point.

With that said, Mr. Clerk, I believe you've gone through the roll. Is that correct?

**The Clerk:** Yes, Mr. Chair. I've called on all the members who are present.

(Motion agreed to: yeas 5; nays 4)

**The Chair:** Thank you.

Mr. Paul-Hus, your time is finished.

I want to thank the Parliamentary Budget Officer as well as your staff for bearing with us during this time. I appreciate that.

We will finish up with Mr. MacKinnon for five more minutes.

[*Translation*]

**Mr. Steven MacKinnon:** Thank you, Mr. Chair.

Mr. Giroux, I apologize on behalf of my Conservative colleagues for that little spectacle.

On numerous occasions today, you have referred to the Department of National Defence estimates. In response to Mrs. Vignola, I would argue that economies of scale can be achieved when you build a single ship in a yard.

In line with Canada's national shipbuilding strategy, we are interested in opening a third shipyard and we are currently negotiating with Chantier Davie in Lévis to do so.

Your report clearly demonstrates that delays bring added costs. If we want to build new capacity for the Canadian Coast Guard or the Navy, we really have to start building ships at multiple sites, including the shipyards in Vancouver and Halifax. We will also have a third shipyard, where we want to build icebreakers, among other things.

To come back to the vessel in question, the Navy has found that combining capabilities on one type of ship, rather than building two types, is the best way to achieve economies of scale. In addition, the versatility of such ships would allow Canada to meet a wide range of needs, such as drug interdiction, participation in commitments to the North Atlantic Treaty Organization, NATO, patrols or

even humanitarian missions in the Caribbean or elsewhere in the world. Ships like this will help us to do all of those things while also realizing economies of scale.

In your opinion, is it reasonable to combine all these capabilities on one ship? Economies of scale could also be achieved by building a long series of 15 similar, if not identical, vessels.

• (1750)

**Mr. Yves Giroux:** There's no doubt that building one type of vessel would result in economies of scale. We took it into account in our report. When we included the economies of scale associated with building these ships, we arrived at a cost estimate of \$77 billion. If we had a hybrid fleet, we would lose construction-related economies of scale, and we would arrive at the cost of a hybrid fleet, as mentioned in the report.

We did not consider the operating and maintenance costs associated with this fleet of vessels, regardless of the design type chosen. We focused on development and acquisition costs.

**Mr. Steven MacKinnon:** So the Department of National Defence's estimate is not unreasonable. Isn't that right?

**Mr. Yves Giroux:** Having only one type of vessel obviously produces economies of scale. We factored that into our cost estimates for construction and acquisition. However, operating and maintenance costs are not part of the report.

**Mr. Steven MacKinnon:** Do you have any comment on Mr. Paul-Hus's assertion that the project is costing a fortune?

That statement is somewhat ironic, given the earlier estimate of \$26 billion, don't you think?

**Mr. Yves Giroux:** I have nothing to add, other than the fact that the costs are considerably higher than originally estimated.

**Mr. Steven MacKinnon:** Are the costs really higher or have they been revised upwards as a result of a flawed assessment by past governments?

**Mr. Yves Giroux:** I did not consider the circumstances under which the original estimates were made. Therefore, I cannot determine whether the estimates are flawed or whether the estimates were accurate at the time, but that the costs have increased as a result of changes to the specifications.

We know that the specifications required by the Royal Canadian Navy have changed over time, but I am not in a position to review the history of the project and perform an autopsy, if I may put it that way, on how costs evolved.

**Mr. Steven MacKinnon:** However, for all the projects reviewed under the national shipbuilding strategy, cost estimates for all of the vessels had to be systematically revised upward. Isn't that right?

**Mr. Yves Giroux:** That is certainly the case for the surface combatants and the support or supply ships. Those are the two studies I can comment on, because I was in office when they were done.

• (1755)

**Mr. Steven MacKinnon:** That's right. You are therefore speaking from experience.

[*English*]

**The Chair:** Thank you, Mr. MacKinnon.

Mr. Giroux, I would like to thank you, Ms. Malanik and Mr. Penney for coming, for bearing with us, and for your succinct and very informative answers. Once again, every time we've asked you to show up, you do so so willingly and quickly. Thank you very much, we appreciate that.

With that said, to the committee, we were going to go into an in camera meeting, but due to the timing, we cannot. Unfortunately, the interpreters have to be at another meeting very soon.

I'm going to have the clerk very quickly mention to you what our schedule is for the next little while. You are aware that we had talked about getting a calendar, Ms. Vignola had asked for that, so we are going to get that set up as soon as possible.

I can tell you that on the issue of the Nuctech study, we should have a first draft of that hopefully by early in April, such that you can have a chance to look at that, and then we can respond to that.

I'm going to turn it over to the clerk to briefly tell you what our next couple of meetings are about.

**The Clerk:** Thank you, Mr. Chair.

What we have planned at the moment is that on Wednesday, March 10, the President of the Treasury Board will appear before the committee to discuss the supplementary estimates (C) and the departmental plans as well.

For our next sitting on March 22, the chair has, as part of the committee's study on the government response to the COVID-19 pandemic, instructed me to invite members of the Public Health Agency of Canada and PSPC senior officials to discuss the national emergency strategic stockpile.

The Minister of Public Services and Procurement has agreed to appear before the committee on March 24. As I explained at a previous meeting, the order of reference will have lapsed to study the supplementary estimates, however, the committee can still hear from the minister on a subject matter study, if it wishes.

The next meeting will be in the week of April 12. There had been some discussion with the chair about the possibility of taking up the Nuctech report at that time as we anticipate that report will be distributed to the committee members in early April. We hope to make sure that the committee members have at least a week to review it before the consideration begins.

As part of the committee's study on the government response to the COVID-19 pandemic, the Minister of PSPC has agreed to appear to discuss the issues related to that on Wednesday, April 14. I raised this issue with the chair, who was planning to raise it with the committee today.

That is all the information I have currently, Mr. Chair.

**The Chair:** Thank you, Mr. Clerk.

Ms. Vignola, do you have a question?

[*Translation*]

**Mrs. Julie Vignola:** Yes, Mr. Chair, I will be brief.

Since we will not be debating motions on the record in camera now, I was wondering when we would do that.

[*English*]

**The Chair:** The clerk and I will look at this for Wednesday coming up, assuming we can stay on schedule. We will schedule an in camera meeting at the end of that meeting, if that's appropriate and we can coordinate that.

Perhaps that's when you could bring those issues up, if you would like.

[*Translation*]

**Mrs. Julie Vignola:** If we are forced to postpone the in camera session in order to debate motions, I'm concerned that we may find ourselves in a spiral of sorts, where we indefinitely put off debating motions that have been put on the record. Yet those conversations need to happen.

• (1800)

[*English*]

**The Chair:** There are avenues to have those discussions in camera as well as during public meetings at any time, if that is what you are trying to allude to.

I'm just assuming that you're concerned about motions that may have been on the floor at a particular time. Is that correct, Ms. Vignola?

[*Translation*]

**Mrs. Julie Vignola:** This relates to the motions in the digital binder that I would like to discuss.

May I open the discussion on them now?

[*English*]

**The Chair:** I'm looking at the clock, and the challenge we have right now is the question of how long they might take, but, yes, you can present those motions at any time, recognizing the time constraints that we do have.

**Mr. Steven MacKinnon:** On a point of order, Mr. Chair, I would invite you to see the clock.

**The Chair:** Certainly.

We are in a challenge, Ms. Vignola. You are right. Because of our votes, that was a bit of a challenge. When we were sitting without the app vote, we were delaying and missing all these times for our committee meetings and to do things in camera. The challenge has gone today. It was nice to have the app vote today, which definitely sped things up.

Hopefully we will see we are able to do it. The problem we have is that our meetings are on Mondays and Wednesdays. It appears that most votes come on Mondays and Wednesdays right at the time when we are having our meetings, which makes it very challenging to deal with the issues we have in front of us.

Mr. Drouin.

**Mr. Francis Drouin:** If we are discussing motions, we are technically now outside our timeline. We should have been in camera. Are we going to end this meeting, or are we going to move in camera to discuss those?

Madam Vignola had plenty of opportunity to present those motions, as you've said, in her time when she could speak. Any member, providing 48 hours, can table a motion.

I'm just wondering what we are doing.

**The Chair:** Time constraints are going to prevent us from going much longer than the next five minutes. I would propose that perhaps on March 22 we schedule committee business where we will have a more firm opportunity for such things as Ms. Vignola is proposing to be brought forward.

I'm seeing some thumbs up for that proposal. I'm not seeing any shaking of heads.

Thank you everyone for bearing with us today.

I declare the meeting adjourned.

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