HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

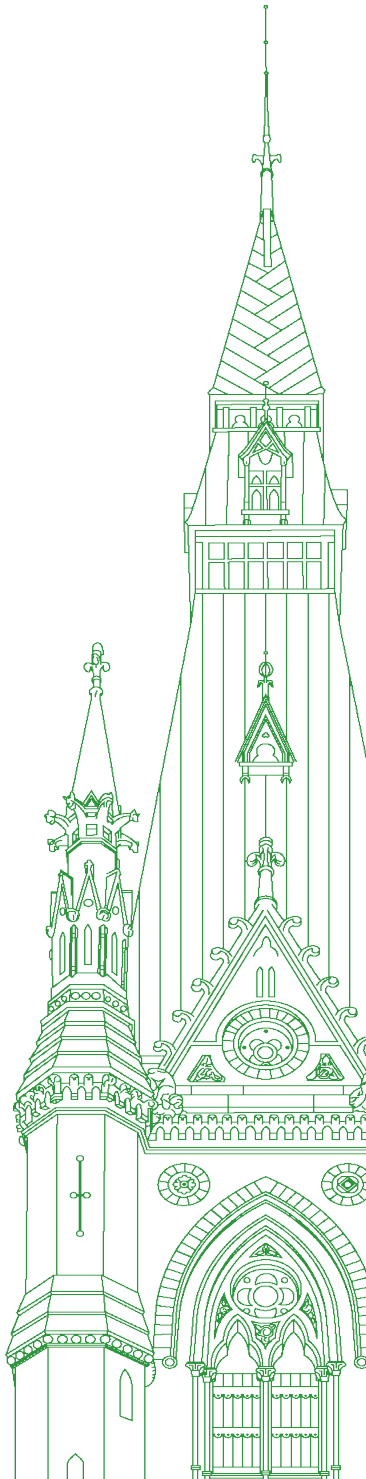
45th PARLIAMENT, 1st SESSION

Standing Committee on Industry and Technology

EVIDENCE

NUMBER 016

Monday, November 24, 2025



Chair: Ben Carr

Standing Committee on Industry and Technology

Monday, November 24, 2025

● (1100)

[*English*]

The Chair (Ben Carr (Winnipeg South Centre, Lib.)): Good morning, everybody.

[*Translation*]

Good morning, everyone. I hope you had a nice weekend.

[*English*]

We are getting towards the end of our study on productivity, but we have a couple more meetings to go. We have two witnesses here in Ottawa with us and one joining us online.

As a brief reminder for witnesses in the room, if you have your headset plugged in but it's not on your ear, please make sure it's placed on the sticker in front of you in order to protect the health and well-being of our interpreters.

[*Translation*]

As a reminder, all witnesses have completed the required connection tests in advance of the meeting.

[*English*]

We have three witnesses with us, as mentioned. We have, from the Centre for the Study of Living Standards, Stephen Tapp, the chief executive officer; from Danby, appearing by video conference is Jim Estill, the chief executive officer; and from Universities Canada, we have Gabriel Miller, the president and chief executive officer.

Witnesses, you will have up to five minutes each for your introductory testimony. I tend to be a little bit generous, but if you see me frantically waving, that means you're getting close and I'll ask you to wrap up.

With that, Mr. Estill, I believe I'm going to ask you to go first. You have five minutes, beginning now. The floor is yours.

Jim Estill (Chief Executive Officer, Danby): Perfect. Thank you.

My name is Jim Estill. I am an entrepreneur, founder, philanthropist and proud Canadian. I'm the owner of Danby Appliances, Arctic Snowplows, and Valcom, and I have investments in many other Canadian companies. Danby has operations in the U.S. as well as Canada, but we are a Canadian company.

I started my first business selling technology products from the trunk of my car. I grew that business to $2 billion in sales. While I was building that business, I invested in, advised and mentored over 150 tech start-ups in Canada. The most famous one I did was BlackBerry, where I was a founding board member. I served on that board for 13 years. I was a co-founding member of Communitech, a thriving tech hub in Waterloo. I was on the OMERS Ventures board when we invested in Shopify.

I've been awarded the Order of Ontario, the Order of Canada and EY Entrepreneur of the Year. I have honorary degrees from the University of Waterloo, the University of Guelph and Humber College. My family and I have been afforded the opportunity to donate over $10 million to many charitable causes in Canada. We opened a furniture bank in Guelph that has helped over 300 families with their furniture and housewares, and diverted tons from the local landfill. We've also sponsored and helped over 1,000 refugees and new Canadians come to Canada.

I had to say all that because my staff said I needed to do it. Now that I've gotten it over with, let me say that I am honoured to have the opportunity to speak today.

The government measures productivity in dollars, which is really the only way to do it. The problem is that it often makes for an apples-to-oranges comparison. For example, if Apple takes 5,000 dollars' worth of parts and 200 hours of labour and turns it into $50,000 of iPhones, they are considered to be significantly more productive than Arctic Snowplows taking $5,000 in parts and 200 hours of labour and selling a $10,000 snowplow. Similarly, if Whirlpool or Samsung take a $200 fridge plus two hours and sell it for $500, they are more productive than Danby taking that same $200 fridge and two hours and selling it for $350. My point is that brand creates productivity. If a company like Danby has a higher cost of capital than Samsung, that higher cost would mean Danby is less productive.

Some productivity is external. For example, if the price of oil increases by $10 per barrel, this increases the productivity per hour, as measured by the government, even though the oil worker is producing the same number of barrels of oil. When people think about productivity, they tend to think about welding robots and AI and conveyors and robotic floor sweepers, etc., but productivity is much more than that.

That said, I do think the accelerated depreciation on those items that are specifically tied to productivity does make sense. It has only a modest interest cost to the government.

I was thinking, why wouldn't companies invest in these if there are savings? One reason might be capital. I always try to look for a win-win. I understand where money comes from. If it comes from the government, that doesn't fall from the sky. That's paid for by all of us. The government's cost of access to capital is much lower than it is for businesses. If a government were to allow businesses to delay paying their HST for six months, they could even charge a 3% interest rate, which means that the government is not owed anything and the businesses will be saving 5% or 8% annually, depending on what their cost of borrowing is.

I'm a business person and a capitalist. I do not believe in government supports for businesses, but if you're going to have supports, at least have them spread fairly. The current grants are directed to start-ups and large companies with good lobby groups. When you give government grants to the auto sector, you are making a company like Danby less productive, because you're taking money from us. It's the same when you build an oil pipeline. That's taking money from the economy, which makes the companies less efficient. Any new government program will add inefficiency to Canada.

I suggest that it might be more efficient to simply expand some of the programs now in place. For example, SR and ED should and could be applied to AI training and AI implementation in companies. Like all SR and ED, if the company uses Canadian inputs, those inputs qualify for SR and ED, so we get double impact. I like doing double impact. If the government is going to spend money, they might as well buy Canadian and pay a small premium. I'm a taxpayer, so I do want it to be a small premium. That small premium would spill over into jobs and prosperity, which in turn means more tax revenue.

● (1105)

That said, we need to be cautious not to massively announce or change things so that the U.S. government won't buy from Canadian companies. Municipalities could likely do more to buy Canadian without getting on the U.S. radar. The problem is that municipalities have no money, so it might not be a bad idea for Canada to offer a small subsidy to help them do that.

Canada does not need more programs; it needs to better understand and execute what works. Productivity is not just about machines; it's about creating conditions where businesses can thrive, innovate and compete globally. If we get this right, we don't just boost productivity; we build a stronger, more resilient Canada.

Thank you. Those are my opening remarks.

The Chair: Thank you very much, Mr. Estill.

Mr. Miller, we'll go to you next for up to five minutes.

[*Translation*]

Gabriel Miller (President and Chief Executive Officer, Universities Canada): Good afternoon, committee members.

My name is Gabriel Miller, and I'm the president and CEO of Universities Canada.

Thank you for inviting me to testify today on such a crucial topic for the country's economic future: Canada's productivity and competitiveness.

Universities Canada represents 97 institutions of all sizes: research-intensive universities, multipurpose regional institutions and smaller specialized institutions. Together, they form a dynamic research ecosystem essential to the country's prosperity.

● (1110)

[*English*]

Canada's ability to tackle its biggest challenges—affordability, housing, health care, productivity and long-term economic growth—depend on its universities. Universities are pillars of their communities, contributing $48.7 billion in economic activity each year and supporting more than 440,000 jobs. They also, vitally, contribute knowledge and talent that drive Canada's economy.

A university education delivers higher earnings, greater job security and stronger participation in the labour market. It also provides the talent that keeps our hospitals, classrooms, research facilities and industries running every day.

Canada's universities train 1.4 million students each year—the next generation of innovators, entrepreneurs and leaders. Universities have helped build this country, and they are indispensable for building a prosperous future. Prosperity and productivity go hand in hand, as you all know, and both depend on a highly skilled workforce.

Today, nearly half of undergraduate students in Canada participate in work-integrated learning, gaining the practical experience that aligns their skills with employer needs. Across the country, our universities are working hand in hand with industry to solve real problems. They're turning research into results, new technologies, companies and solutions for Canadians.

University research is one of Canada's most powerful engines of growth. Our institutions conduct more than a third of Canada's total R and D, generating discoveries, attracting investment and strengthening competitiveness. These outcomes happen when research meets industry and communities. With emerging technologies, from AI and quantum to clean tech, the demand for research talent will only grow.

However, many institutions simply don't have the resources to take discoveries from the lab to the marketplace, or to keep the intellectual property and its economic benefits here in Canada. The challenge doesn't fall on universities alone. Our small and medium-sized enterprises face similar challenges. They account for 96% of Canada's private sector, yet lack the resources to adopt new technologies or pursue their own IP strategies. The result is predictable. We lose valuable intellectual property and the economic opportunities it should generate.

With stronger partnerships among government, universities and industry, and with targeted support for IP protection and commercialization, Canada can keep more of its innovation here at home.

Let me close with the following three recommendations.

First, engage universities directly in major nation-building projects. Initiatives like BOREALIS and the defence industrial strategy show potential. Deep engagement throughout these projects and all major nation-building efforts will strengthen our talent pipelines and help scale Canadian technologies.

Second, partner with universities to advance AI breakthroughs and adoption. AI can radically enhance productivity across the economy. Universities are already helping businesses integrate AI tools through training, mentorship and applied research. With federal investment, these efforts could scale nationally and help businesses adopt emerging technology more rapidly.

Third, and finally, strengthen university tech transfer and accelerate our infrastructure. Targeted support for tech transfer offices, incubators and accelerators will help turn Canadian research into Canadian companies, jobs and economic growth.

Addressing Canada's commercialization and productivity challenges will require many solutions, but these steps can deliver significant impact quickly.

[*Translation*]

Thank you for the opportunity to speak with you today.

I look forward to your questions.

[*English*]

The Chair: Thank you very much, Mr. Miller.

Mr. Tapp, the floor is yours.

Stephen Tapp (Chief Executive Officer, Centre for the Study of Living Standards): Thank you, Chair and committee members, for the opportunity to appear today.

My name is Stephen Tapp. I'm the CEO at the Centre for the Study of Living Standards. CSLS is a Canadian non-profit research organization that was founded in 1995.

Canada's productivity performance has been a long-standing concern, but it's now widely acknowledged that we face a productivity emergency. Over the past 50 years, our labour productivity growth has slowed dramatically. In the post-war period, productivity grew at nearly 4% a year. Since 2000, it has grown by less than 1% a year. To put this change in perspective, before the slowdown, productivity doubled in 19 years—now it takes about 90 years. This means that the economic progress that each generation previously enjoyed now takes longer than most lifetimes. If we don't reverse these trends, growth and living standards will remain too sluggish, and it will be harder to fund the essential public services that Canadians rely on.

In CSLS research, which was part of an international collaboration led by the U.K.'s Productivity Institute, Andrew Sharpe and I examined Canada's historical productivity performance. While far from perfect, we find that Canadian governments have generally pursued a lot of different pro-productivity policies over the years, from liberalizing trade to targeting inflation, modernizing taxes and investing in human capital. Despite these actions, productivity growth has stagnated in Canada and across most advanced economies. Why?

There are many factors that help explain the slowdown, including that Canada has a small domestic market that represents a shrinking share of global economic activity. Most of our firms are small and have had limited success in scaling up. Competitive pressures and business dynamism have weakened over the last decades. Regulations have increased, becoming more complex and costly to navigate. Our international trade position was lagging well before recent U.S. protectionism.

Ultimately, however, we think the biggest drivers of Canada's poor productivity are slow technological progress and chronically weak business investment. It's encouraging, then, that budget 2025 seeks to raise investment, as we think this correctly diagnoses a key part of the problem.

That said, we must acknowledge that Canada's economy is at its most challenging juncture in decades. U.S. tariffs and threats have created massive uncertainty, and the Canada-U.S.-Mexico agreement will soon come under existential pressure in the 2026 review. This makes efforts to spur investment even more important, but also more difficult.

Given these external challenges, Canada should focus on what it controls, with a policy agenda that aims to incentivize technological adoption and investment, support international trade participation and diversification, improve internal market efficiency, modernize the tax system, and enhance skills and workforce training. Gabriel mentioned artificial intelligence. We think that AI, a technology that Canada helped to pioneer, also represents a major opportunity.

That's why, in June, the CSLS launched the Canadian AI adoption initiative, in partnership with CIGI and the University of Waterloo, to support and track progress on broad-based AI adoption across the economy.

In all areas, we should reach for every basis point of growth we can get. Gradual, sustained progress can meaningfully improve living standards when compounded over time.

Before closing, I want to highlight that while national GDP and productivity indicators provide essential signals, they don't capture the full picture. Broader measurement that digs into and beyond the national numbers, like the CSLS indexes of economic well-being and human development, reveals large disparities across Canada.

On human development, for example, we estimate that Canada's top-ranking jurisdictions of Ontario, Quebec and Alberta would place 15th to 17th globally. By contrast, in the territories, Nunavut ranks around 70th globally. This effectively represents the difference between living in a place like the U.K. versus Albania, based on these implied rankings. Such disparities underscore the enduring challenges, particularly in Canada's north and indigenous and remote communities, as well as the need for place-based policy approaches.

CSLS research also suggests that traditional economic indicators, as disappointing as they've been, may actually have overstated Canada's progress, because when you look beyond the aggregate results, you see that we face more inequality and more risk than we did decades ago.

In closing, Canada's productivity performance has been disappointing, and the outlook is challenging. It will take time to address these complex and long-standing challenges. By correctly diagnosing the root causes, leveraging new technologies and implementing policy reforms, we can strengthen productivity slowly but surely to make a meaningful difference over the long run.

To guide that progress, traditional indicators should be complemented with beyond-GDP measures to support more inclusive and resilient prosperity for all Canadians.

Thank you for your time. I look forward to your questions.

● (1115)

The Chair: Thank you very much, Mr. Tapp.

Colleagues, we'll enter our line of questioning.

Mr. Falk, the floor is yours for six minutes.

Ted Falk (Provencher, CPC): I want to thank all of our witnesses for their testimony here this morning. It's very interesting.

Mr. Estill, I would like to begin with you. You made a comment that our productivity isn't necessarily measured by the right metrics. You said it's not always about the dollar amounts; it's actually about what is being produced. Could you expand on what you mean by that a little bit, so we have a full understanding here at committee?

Jim Estill: Sure. I mean, there's no easy way to compare apples and oranges. Productivity has to be measured in dollars, but making a fridge is not comparable to making a car. It is not comparable to making an iPhone, or to Microsoft selling software or Google selling advertising.

● (1120)

We measure productivity and think that we don't have productivity. It's almost like with your own fitness level or running. You try to improve your own time, as opposed to trying to.... Well, I guess in that case, you do try to beat other people, but I don't know of a way to measure better than with dollars.

Ted Falk: Sir, another comment you made is that too much government spending negatively impacts our productivity data.

Jim Estill: Yes, that's correct.

Ted Falk: You would agree that part of our poorer productivity data may be attributed to overspending by the government.

Jim Estill: You could say that. All governments overspend. I'm a capitalist.

Ted Falk: Thank you very much.

Mr. Miller, I have a few questions for you.

I don't know if you've had a chance to see it, but Mr. Tapp's organization issued a recent report. In its November report on productivity, chart 5 says that Canada's tertiary education attainment rates are the highest among the OECD countries, somewhere just over 63%. We often compare ourselves to the Americans, which are just over 50%. However, those high education rates haven't translated into higher productivity, based on the data.

Mr. Carney, just in the last few days, said that our government is no longer a “feminist foreign policy” government. Do you think our universities have disproportionately put too much emphasis on DEI and woke policies and not enough on hard education?

Gabriel Miller: I can speak most persuasively from my own experience. I spend time with university presidents just about every week. I'm on campus seeing students and faculty throughout the year. I meet hundreds of people on our campuses. What I see with my eyes are people who are remarkably focused on the future. I think students are perhaps more engaged in their studies and preparing to be successful in the economy than they have ever been. Certainly, they seem more focused on the future than my friends and I were when we were in university. My sense from our universities is that they continue to do an excellent job at preparing people to go out into the workforce.

I would also add, and Stephen may correct me, that there's something misleading about the way we talk about Canada's higher education attainment. When it comes to undergraduate performance, we're basically middle of the pack. We're lagging behind other OECD countries when it comes to graduate degrees completed.

Ted Falk: My question was specific. Have we put too much emphasis on DEI and those social issues rather than on actually teaching core competencies like engineering and entrepreneurship?

Gabriel Miller: I think we're doing a great job of teaching core competencies.

I would just add there's been—

Ted Falk: It doesn't show in the data.

My next question is for Mr. Tapp.

Mr. Tapp, in your report from November, chart 2 shows the relative labour productivity levels per hour in the business sector. I see you have historical information from 1947 to 2023. I notice that during the time of 2008 to 2015, there was actually a trend of increasing productivity, and after 2015, during the Justin Trudeau years, we actually saw sharp declines in productivity.

You mentioned in your comments that we've become over-regulated. Can you tell me what specific regulations you're referring to that have negatively impacted productivity?

Stephen Tapp: Sure. Let me address the first part of the question.

First, regarding productivity, it's important to note that Canada's productivity performance since, let's say, the year 2000 or so has been relatively middling versus the OECD economies. We have done worse, I think, from 2015. Part of that reflects the fact that global oil prices came down significantly in 2014-15, and a lot of the investment that we had in the energy sector disappeared, to a large extent. That was responsible for a third of our capital stock and overall capital spending, and there have not been other sectors that have come in to capture that.

Ted Falk: Bill C-48 and Bill C-69 have really dampened our oil and gas industry and have negatively impacted our productivity.

Stephen Tapp: The lack of investment in the energy sector over the last decade and over longer periods of time has made it more difficult for us to compete and contribute and do well in the economy.

I think the second part of your initial question was about the regulations. I can't speak to specific regulations; I'm more of a macroeconomist, and we do aggregate-level data, so we don't look line by line.

I will highlight that there was a StatsCan report with research over 15 years, and it highlighted that there was an increase in federal regulations of over 2% a year in that period. They did some estimates and modelling that suggested GDP was close to 2% lower because of that and, in particular, that the investment was 9% lower. This discourages entry of businesses and it discourages investment particularly.

To some extent, the fact that we have a Major Projects Office is an admission that it's difficult to get large projects done, so we're trying to move around that process and move things forward. That's a good initiative, and we'll hopefully see that bear some fruit.

● (1125)

The Chair: Thank you, Mr. Falk.

Ms. O'Rourke, the floor is yours for six minutes.

Dominique O'Rourke (Guelph, Lib.): I have a point of order, Chair Carr.

MP Falk referred to our Prime Minister as Mr. Carney. When the Minister of Industry was here, MP Dancho asked that she be referred to as MP Dancho, and I would ask that at this committee we use the Prime Minister's title, which he earned from Canadians.

The Chair: Ms. O'Rourke, I appreciate the point. There's no standing order at committee that has been violated, and therefore there is no point of order specific to the breach of regulations that I can rule on, but I appreciate the intervention.

The floor is yours for your line of questioning.

Dominique O'Rourke: Thanks very much, Chair Carr.

Mr. Estill, thank you very much for joining us.

Danby is a stalwart in Guelph, and Mr. Estill personally sponsored 50 Syrian families to come to Guelph and provided employment and all kinds of support. Both in business and in philanthropy, he's a leader in my eyes and in the eyes of many people.

Mr. Estill, budget 2025 proposes a number of measures: major projects; homebuilding; investments in AI and in the defence industrial strategy; a number of ways to pivot to more international markets while shoring up the industries that have been affected by U.S. tariffs, including the regional tariff response initiative; and accelerating Canadian R and D through the productivity super-deduction and expanding SR and ED, just to name a few. There is a lot in this budget.

Which of these measures do you believe would be most helpful in boosting productivity, and what other approaches do you believe would be effective?

If you could take a minute or two, that would be helpful, because I also have a question for Mr. Tapp.

Jim Estill: Investment in AI is going to have the best return. When a change happens, the companies that pivot to it the most quickly end up being the winners. We don't want to be the laggards in that.

We have a housing issue, so making investments in housing is logical. I hate to say it, but investments in defence are also necessary, based on the current state of the world.

AI is where I would put my money, personally.

Dominique O'Rourke: That's terrific.

Are there other measures you believe would be important to boost productivity? Particularly, you mentioned medium-sized businesses. What do you think would be most effective for them?

Jim Estill: If you're going to be giving money to companies that have bigger lobby groups, you miss all of the middle pack. I don't really believe in having any programs, but if you're going to have programs, you have to have something for the mid-size in the market, because the mid-size in the market creates tens of thousands of jobs and creates diversity in our economy. If we're only a car-manufacturing economy or only an oil economy, then we have a problem. We want to have diversification in that.

I love the idea of selling to international markets, but I have to say that it is difficult for most Canadian companies. To make a sales call in Germany costs $10,000. We can't be there tomorrow. The regulations are different, and the laws are different. These other markets aren't sitting there saying, “Gee, we don't have any fridges. We're just waiting for you to ship your fridges in.” They already have fridges, and fridges are big and not very easy to ship, and blah, blah, blah.

Dominique O'Rourke: Thank you very much.

My next question is for Mr. Tapp.

Mr. Tapp, you were an economist with the Canadian Chamber of Commerce when we met last year in Guelph. You indicated my riding as one of the most vulnerable in the country to tariffs. At the same time, there was a conversation about the initial use of counter-tariffs, but you indicated that those could not be maintained in the longer term. The opposition has mentioned that this is “elbows down”.

I'm wondering if you would comment on the appropriateness of this situational leadership over time and whether we are meeting the moment with an appropriate response.

● (1130)

Stephen Tapp: Thank you for the question.

First, I think we have to acknowledge the difficulty of the moment. The uncertainty and the scale of changes in U.S. tariff policy have been more or less unprecedented. The discussions we had were early in the process, when I was with the Chamber of Commerce.

You're right. Guelph is very highly impacted. Southwestern Ontario is certainly going to be under the gun under these tariffs.

The government's response initially was the counter-tariff measures. I think that from a game theoretic perspective, people considered that if the counter-tariffs increased pressure politically on the U.S. and caused it to drop the tariffs, that was a smart move. It became clear a few months into this strategy that it was unlikely to have any deterrent effect on Donald Trump, and that keeping the tariffs in place was just going to raise our costs and reduce our productivity. Getting rid of those counter-tariffs is probably the best policy approach at this point in time.

Dominique O'Rourke: Thanks very much.

You indicated that the current uncertainty is also impacting productivity, and that counter-tariffs would raise prices, in addition to the tariffs that are in place.

I have a question from this perspective now for the Centre for the Study of Living Standards. A number of witnesses have come here to say that we need to eliminate taxes and regulations significantly, along with a number of measures.

Taxes pay for services in this country. They pay for education and they pay for the skills training that we're investing in. How do you avoid a race to the bottom in terms of taxation or regulation? That's not to say that we don't need to adjust things, but what's the framework to assess, from an economic point of view and from a productivity point of view, the best way to weigh those pros and cons?

The Chair: There are about 30 seconds left.

Stephen Tapp: There's a chart in budget 2025—I don't know the number of the chart—that looks at the marginal effective tax rate. That's often how economists will look at providing incentives for investment. You can see there that with some of the reductions and increased accelerated capital cost allowance for expenses, we have reduced it, to a great extent, across many sectors, and it is similar to that of the U.S.

The bigger problem, as I mentioned before, though, is the level of uncertainty right now. I think our folks at Danby, along with others, can attest to this. Regardless of the policies in place in the near term, it's going to be very difficult for people looking for longer-term investments to be sinking into multi-million or multi-billion dollar projects when they're unclear about the access they're going to have to the U.S. market in the near term.

[*Translation*]

The Chair: Thank you, Ms. O'Rourke.

Now we go to Mr. Ste-Marie, who is joining us by video conference today.

It's always a pleasure to see you, Mr. Ste-Marie.

You have the floor for six minutes.

Gabriel Ste-Marie (Joliette—Manawan, BQ): Thank you, Mr. Chair. The pleasure is mine.

Greetings to all my colleagues, and thank you to the witnesses for being here and for their presentations.

My questions will be for Mr. Miller from Universities Canada.

In your presentation, you gave an overview of the research being done at universities, but I'd like us to unpack the obstacles—

The Chair: Mr. Ste-Marie, hold on a second.

[*English*]

Mr. Miller, your body language tells me that maybe you need assistance with the interpretation.

Gabriel Miller: It already got a run-through. I apologize.

The Chair: That's okay.

[*Translation*]

Mr. Ste-Marie, we're going to do a little test.

Mr. Miller, is the interpretation working? Can you hear me? Yes? Excellent.

Mr. Ste-Marie, you have six minutes.

Gabriel Ste-Marie: Thank you, Mr. Chair.

As I was saying, I'd like to thank the witnesses for being here and for their presentations.

My questions will be for Mr. Miller from Universities Canada.

In your presentation, you alluded to the current obstacles to university research commercialization, and I'd like us to unpack that.

What is the general situation? What are the barriers to university research commercialization?

Gabriel Miller: Thank you very much for your question.

[*English*]

There are two obstacles, I think, that are most relevant to the committee's work.

The first is that there are very limited resources inside the university to support researchers in commercializing their work and creating the linkages to industry that are required to take it to market. We have, in many universities, offices that are set up to do this, but they are, in many cases, underfunded. Providing proper support to build the capacity within the university among researchers to commercialize research so that Canada can benefit is key.

The second part, of course, is that you need partners outside the university in order for Canada to benefit from what's happening inside the university. Steps that can help us scale up investments and turn them into viable industries, businesses and products are critically important. One area where I think we're seeing some progress on that is the work the government is doing to tie research investments to its broader industrial strategy, including on sovereignty in defence. That work is important and should continue.

● (1135)

[*Translation*]

Gabriel Ste-Marie: Your recommendations for the budget include more financial support for university research commercialization programs. That was the first part of your answer.

With regard to the second part, in your presentation, you talked about technology transfer to businesses, and you gave examples of what should be targeted, including incubators.

Can you give us more details and examples of the ways in which the technology transfers you're talking about could be done?

[*English*]

Gabriel Miller: I'd be happy to follow up with the members with a list of specific examples.

What's key in these tech transfer offices—and there are not many in Quebec or elsewhere across the country—is that one of the most important functions they play is helping university researchers turn their work into intellectual property. That capacity is critically important. They also help them develop the skills and the connections so that IP can be turned into economic opportunities, both in their community and in other parts of the country.

[*Translation*]

Gabriel Ste-Marie: I would like us to talk about the situation of small and medium-sized enterprises, or SMEs. Once again, you mentioned this in your presentation. There are a large number of SMEs, and they represent a very significant part of our economy.

Could you explain in more detail how to better apply the advances made in universities to SMEs so that everything is better integrated?

[*English*]

Gabriel Miller: The real challenge here is simply in the capacity of smaller businesses to free up the capital and access the expertise required to take advantage of these opportunities, and then to scale them up in Canada. This is one of the reasons why so much of the research we produce and the intellectual property we create ends up being taken to market outside of Canada by much larger firms.

There are a number of programs within the federal government now that have scaled up and could continue to make it more viable for small and medium-sized enterprises to scale up, and to scale up in other ways. We can use, for instance, the research agenda and the procurement associated with Canada's new defence industrial strategy to make the commercialization of Canadian research more viable.

Let me be more specific on this piece. The use of procurement is a really valuable opportunity, because oftentimes, it's the lack of certainty facing a smaller company about its ability to recover its investment and profit in the future that ends up discouraging it or making it financially impossible for it to take that leap and scale up using Canadian research. The proper use of procurement and guaranteed customers at the other end can de-risk that process for smaller companies and make it much more viable for an economy like ours, which is so dependent on small and medium-sized enterprises, to keep more of its research commercialized here in Canada.

[*Translation*]

Gabriel Ste-Marie: Thank you very much.

Mr. Chair, I see that my speaking time is up. I will continue my questions when it is my turn again.

The Chair: I will add the 30 seconds you have left to your next turn, Mr. Ste-Marie.

[*English*]

Ms. Borrelli, it's nice to see you virtually this morning. The floor is yours for five minutes.

Kathy Borrelli (Windsor—Tecumseh—Lakeshore, CPC): Thank you, Chair.

Thank you to all of the witnesses for being here this morning.

My questions are for Mr. Miller right now.

Talent shortages are a major factor behind weak business investment. How important are universities in fixing this gap? What reforms do you believe are most urgent?

Gabriel Miller: Thank you for the question. I completely agree that our future success—whether it's in these giant national ambitions that have been announced recently by the government or simply in terms of making our economy more productive—is going to depend on the quality of talent we have, both in what we make of the Canadian talent that's born and raised here and also in how we use our system of attracting international talent to the greatest effect.

I would focus on one thing right now when it comes to near-term talent needs. As we all know, Canada has substantially scaled back its system for international student attraction. That means we'll need to make the very most of the more limited number of spaces that we're going to have, and bring those future entrepreneurs, engineers or doctors here—people who may end up staying in Canada if they decide to immigrate and they're accepted, or, in many cases, going back to other parts of the world and creating invaluable trade connections to Canada.

The single thing that I think the country could do right now to improve our performance in that area is to begin to coordinate more strongly within Ottawa and between the federal government and provincial governments to make sure that we're achieving our objectives. A very encouraging development recently was the announcement of a $1.7-billion talent attraction strategy in this year's budget. If we pair those investments in future researchers with a highly effective visa-processing system and a strategy to promote Canada to the best and brightest, we will begin to win again in the international competition for talent.

● (1140)

Kathy Borrelli: Which industries do you believe are struggling the most with talent gaps?

Gabriel Miller: This will give me a chance to go back to the point Mr. Falk raised, which is that one thing we can see is that Canada has a shortage of highly skilled talent, particularly in key areas such as artificial intelligence. There are two things that I think we need to highlight about this. One is that Canada was a global leader in AI. It remains one in a research capacity, but it has lost a good deal of the talent that came up through its universities. We need to focus on equipping the country's economy to hold on to more of those people.

I think we also have to acknowledge that Canada is not a top global performer when it comes to creating graduate-level researchers and future workers in key strategic fields. I have a number in front of me, which is that we are 25th among OECD countries in the share of adults with graduate degrees. We need to have not just good general education performance; we need much more high-level performance when it comes to the best and brightest in strategic areas.

Kathy Borrelli: How much does the funding level have to do with that?

Gabriel Miller: Well, it has a lot to do with it because, first of all, our research ecosystem is only as strong as the institutions that drive it. As many of you know, universities in Canada are going through a period of profound financial challenge. The changed international student rules brought that to the surface, and we need to get that system working right again in a sustainable way, but, really, it just revealed a challenge that, nationally, Canada has been underinvesting in higher education for some time.

There are ways the federal government can be supportive. Its recent investments are helpful. Making its investments in research, infrastructure and even student housing as predictable and sustainable as possible will help our institutions be more sustainable. That way, they can do more work to attract research talent and develop the people who are going to lead us to the front of the global economy in a world that's going to be driven, increasingly, by AI, quantum computing and other cutting-edge technologies.

The Chair: Thank you, Ms. Borrelli. That's all the time we have for your line of questioning.

Mr. Bardeesy, five minutes are yours, sir.

Karim Bardeesy (Taiaiako'n—Parkdale—High Park, Lib.): Thank you very much, Chair.

First, I have a question for Mr. Miller.

I want to pick up on the talent investment you referred to. What kinds of actions and activities will we need, now that this program has been announced, to make sure that these investments in new talent attraction, including doctoral and post-doctoral students, drive productivity?

● (1145)

Gabriel Miller: [*Technical difficulty—Editor*]

Karim Bardeesy: Chair, I don't think the microphone is on.

The Chair: Okay, it seems to be good now.

Mr. Miller, do you want to repeat your remarks so we have them in both languages? Thank you.

Gabriel Miller: Sure, I will as soon as I remember what I was going to say.

I would say two things here. One is that what we're seeing in the budget and more generally from the government is a recognition that the more integrated the relationship is between universities, industry and business from the start in these initiatives, the better our performance is going to be. The feedback from business and from outside the university can help make sure that the research is as focused as possible on the needs of the Canadian economy. Going back the other way, those relationships will help researchers develop breakthroughs, technologies that will be applied and have the greatest chance to be commercialized. Early, ongoing engagement as these programs are designed and rolled out.... Also, to assist with speed is very important.

The other piece is that we need to have an integrated strategy. That's being increasingly recognized. We can see, with something like the defence industrial strategy, the recognition that these players need to be at the same table from before the design of a program. We now need to make the connection between.... Let's take the talent attraction investments. The government has made a sizable commitment to fund chairs and future researchers, the people who can make our labs leaders in things like AI. There is also work done at Global Affairs to promote Canada to talent globally, and then there's the process of welcoming those people and processing applications at Immigration. We need to get those folks, as much as possible, on the same page and working with our provinces and territories so that, in Canada and outside of Canada, the message to the talented people in the areas we want is being delivered very clearly and consistently and we're doing everything to bring them here in as seamless and effective a way as possible.

Karim Bardeesy: Thank you.

Now I'll go to Mr. Tapp.

For quite a while, the centre has been doing research on a variety of productivity-related topics, and you referred to the major productivity set of studies you're doing. I want to ask about the most recent one. I'm just quoting from the abstract here: “Our analysis suggests that successive Canadian governments have generally pursued relatively market-oriented, pro-productivity reforms...yet productivity growth continued to falter”. The main drivers “appear to be declining technological progress and inadequate business investment”, not an absence of policy effort.

I'm wondering if you could maybe tease out this more fundamental issue of inadequate business investment that you see in your research over the longer term and what might explain it.

Stephen Tapp: I'll point out, concerning the research you're mentioning there, that we were asked to do the Canadian study. There are 17 different studies from 17 different countries for the U.K.'s Productivity Institute. We were trying to look at the productivity performance in Canada's economy over long periods of time and the role of public policy in either making that better or making that worse.

We analyzed a lot of different data. We did some decompositions and various measures. As you mentioned, we came to the conclusion that it's not as though Canadian policy-makers have been asleep at the wheel. Don Drummond, in the International Productivity Monitor that we published about 10 or 15 years ago, said that economists have come forward with a lot of different recommendations. We cited some of those. About 70% of that list has been implemented, maybe not to the full extent of what people wanted, but we shouldn't think that the remaining 30% would necessarily get us to the point where productivity is going to take a major improvement.

Our diagnosis came down to there being a variety of.... It's a systemic and complex issue that has been going on for a long period of time, but slow technological progress is a driver. That's happening in Canada, but it's happening globally as well. We're getting more and more research dollars and getting less and less out. That's just getting towards the frontier and moving more slowly. That just seems to be the case of where we are with technology.

I do think, as others mentioned, that we have some options with AI, but the weak business investment in Canada is something that stands out relative to others. As I mentioned, the government is making some policies now to really put investment front and centre. They're looking at a capital budgeting framework, which is going to sharpen incentives and improve that.

In the near term, I'm relatively pessimistic about the ability to have a big impact on major projects in Canada, at least from the private sector and at least in manufacturing, as we're facing a big trade shock. I'm optimistic over the longer term that Canada can do better.

● (1150)

The Chair: I'm sorry, Mr. Bardeesy, but it's cutting it tight now for the introduction of another question.

[*Translation*]

Mr. Ste-Marie, I have added 30 seconds to your speaking time. You therefore have three minutes.

Gabriel Ste-Marie: Thank you, Mr. Chair.

Mr. Miller, in your presentation, you mentioned the great potential of artificial intelligence to increase productivity, which is a hot topic.

I would like to talk to you about the potentially negative impact of artificial intelligence on student education. We know that students often use generative artificial intelligence programs, such as ChatGPT, to do their homework, such as research projects.

According to your organization and your members, what strategies should be adopted to ensure that young people continue to receive high-quality education, given these new tools?

[*English*]

Gabriel Miller: It's a very good question.

[*Translation*]

It is important to be honest about the fact that artificial intelligence offers great opportunities, but also entails risks and major challenges.

[*English*]

There are huge challenges here, and I hear about it from our members all the time.

Obviously, one of the things that leap out is the challenges it creates in terms of assessing and evaluating students. Universities are busy addressing that to make sure that they're changing or adjusting the way they test students so that they're responding to the challenge that people could be relying on artificial intelligence to do their work for them. We know that making sure that we're getting a clear picture of what students have learned is going to be critical to the effectiveness of our education system.

What we're also hearing more about, and I think the research on this is still developing, is the effects on people's critical reasoning abilities and, frankly, their capacity to learn and to solve problems on their own if there is an artificial intelligence agent or resource that can do so much of that work for them.

I would say that some early indications of this—of where we're heading and what's going to be important—suggest that it's very important that we not try to push AI away or to seal the university or our workplaces off from it. What we need to be doing is engaging with it and confronting these challenges directly.

I also think that what's critically important is that students are being asked to use AI in a way that actually strengthens and reinforces those fundamental capacities that we're worried about being eroded. The latest numbers I've seen show that we are now up to about 50% of university classrooms that are using AI consciously and deliberately as part of the program, and nearly that number are asking students to use it as part of their assignments, so that they're engaging critically with these tools, and in fact critically assessing the information and the tasks that AI is performing.

This is what it's going to require for us to succeed socially and economically. These tools can massively amplify what humans can achieve, but we need to maintain our ability to steer and to think critically about them. By harnessing their power and exposing students to them, we can get the best of what these tools can offer them while managing the worst of what they might threaten.

[*Translation*]

The Chair: Thank you very much, Mr. Ste-Marie.

[*English*]

Mr. Guglielmin, you have five minutes.

Michael Guglielmin (Vaughan—Woodbridge, CPC): Thank you, Mr. Chair.

Mr. Estill, as somebody who spent their career on the operations side in the manufacturing sector, you and I certainly share a lot of views on plant productivity and efficiency and how it's likely the best mechanism to drive ROI for a business.

In recent remarks, you suggested a simple change allowing full writeoffs for venture investment to encourage Canadians to invest more of their own capital into new ventures, noting that Canada has strong early stage programs, but very few mechanisms that actually reward private investors for backing new ventures with their own capital.

Would you say that in the past the federal government has relied too much on its own subsidy and not enough on tax changes that actually mobilize private risk capital, like the full writeoff idea that you floated, and to do this for productivity-enhancing purposes?

● (1155)

Jim Estill: Well, what I like to do is come up with win-win solutions.

A full writeoff doesn't actually cost the government anything but possibly a little bit of interest. If I invest $1 million in a new business and it goes bankrupt, I get that writeoff five years from now or 10 years from now. If I invest $1 million, get a full writeoff today and sell it for $10 million in five years, you still get the tax on my capital gain. That was one of the reasons to float that idea.

Anything we can do that has low cost to the government and encourages more entrepreneurship, in my opinion, stimulates.... One of the other witnesses talked about the uncertainty in the current environment. With tariffs, and given where things are going, everyone is going to underinvest. No one is going to build a new factory today, because you don't know where you're going to sell the stuff.

Michael Guglielmin: If we were to adopt some of these programs—specific, targeted tax incentives, for instance—to try to drive this type of investment at home, do you think that would prevent some of the capital flight that we're seeing in Canada today?

Jim Estill: Nothing is going to prevent it, but yes, it would slow it. Investors invest where they think they can get the best bang for their dollar. It would stimulate investment, but nothing ever stops that flight.

Michael Guglielmin: Thank you.

Mr. Miller, the Council of Canadian Academies' “The State of Science, Technology and Innovation in Canada 2025” found that Canada is facing “a worsening productivity crisis”, with business and government sectors' STI performance declining, “stubbornly low” business R and D and slow technology adoption, even as higher education remains a “bright spot”, as they put it, in our country. It notes that our research and talent base is strong, but it's at an increasing amount of risk.

From where you sit, do you feel that we're converting that university-based talent and research excellence into domestic capital formulation and productivity growth, or are many of our top graduates and ideas, when it comes to commercialization, still going abroad?

Gabriel Miller: Well, there's no question that many of our top graduates, as you just put it, and a lot of the IP that's generated in our universities are leaving the country.

I think we've accomplished a lot in Canada in preparing for a time, which is now, when we can benefit more from the research and training being done in our universities, but to do that, we are going to have to really bear down and increase the capacity of our researchers to connect with the private sector and for the private sector to scale up here at home in order to have the benefits and the opportunities that go with that.

There is a long way for Canada to go on this, but there's no time to waste.

Michael Guglielmin: Can you identify any specific policies that could explain some of that disconnect and how our world-class research could be used in a more productive way by attracting investment capital to Canada and retaining some of that talent?

Gabriel Miller: Well, we know that some inherent challenges in Canada relative to, say, the United States make it challenging for us to scale up the commercial opportunities from our research into our own economy and keep those opportunities here. I do think that we've done a good job of building the capacity to start changing this situation.

I just want to say, as a broad point, that the gap between what's happening in labs and classrooms and what's happening outside them in the economy can sometimes be big. I think one of the things Canada has done over the last 30 years is to really try to narrow that gap, in two ways. One is by exposing more students to the workplace while they're being educated, so about half of our students now graduate with workplace experience when they leave the university campus. The other has been reorienting our research culture to be much more focused on the needs of our business community, and we're starting to see that bear fruit.

● (1200)

Michael Guglielmin: Thank you.

The Chair: Thank you, Mr. Guglielmin.

Mr. Danko, the floor is yours for five minutes.

John-Paul Danko (Hamilton West—Ancaster—Dundas, Lib.): Thank you, Chair.

My first question is for Mr. Miller.

I represent a riding that has three post-secondary institutions: McMaster, Mohawk and Redeemer. I also happen to have two kids who are 17 and 19, so they're right in that area where they're transitioning to their post-secondary career.

You talked about the role of universities in developing Canada's highly skilled workforce, and we talked about engineering, science and research. I'm a structural engineer, so I'm very familiar with that part of a university education, but I want to give you an opportunity to expand on the role and the value of the humanities, the social sciences and the arts, because when I talk to businesses, I often find that they are looking for employees who can act independently, have critical thought, are solution-driven and can articulate themselves and communicate.

Would you like to talk about the value of those other parts of a university education as part of Canada's workforce development?

Gabriel Miller: I think the first point—and probably the most important—is the one you just made, which is that, pretty consistently in surveys of employers, the skills they're looking for are skills that are not as much narrowly technical but are about the broad ability of a student and a new employee to exhibit leadership, communicate with colleagues and work across cultural boundaries. These are all skills associated in many ways with education in the humanities and social sciences.

I'd also say that our research agenda is going to be desperately in need of insights from these disciplines. I think we can see what's happening globally right now. There's obviously the technical capacity to develop new products. There is the ability to market and sell them, but there's also the cohesion of your society and the ability to address political, social and economic challenges. If those systems break down, our ability to create prosperity and to benefit from it is very much limited.

I'll just finish with this. I think the picture that's coming into view is that we're going to need well-rounded, adaptable people. The kids who are studying philosophy or history are also going to need to be exposed to AI so that we have people coming out who are ready to jump into the workforce and who also have underlying skills that can serve them well throughout their careers.

John-Paul Danko: Thank you.

I'm changing the subject here.

Mr. Estill and Mr. Tapp, you both spoke about GDP being problematic as a measure of productivity. I want to give you two examples and then ask you to comment.

The first is that the valuation of AI and tech companies is often based on speculation. They have these massive valuations, but they don't actually produce anything. Therefore, on paper, they have high productivity, but in reality they're not making anything. Cryptocurrencies would be an extreme example of what I would consider a pretend economy.

Also, if you're strictly measuring productivity based on GDP, there's an incentive to build bad products. An example would be, in the housing industry, if I'm building minimum-code products that constantly need repairs and upgrades over their life cycle versus building a high-quality product initially. Productivity over the long run would be higher if you're building a lower-quality product.

I'd like either of you to comment on those scenarios in terms of measures of productivity.

Stephen Tapp: I think economists developed the concept of GDP maybe 100 years ago. There were limitations and problems back in the 1920s, and there are limitations and problems with it now. I wouldn't say that it is the be-all and end-all. I think that even in my remarks I said that we should also be looking at the distribution of overall income and the risk around that—the financial risks that other people face. That's why our index of economic well-being takes into account 28 different indicators, as opposed to GDP being the sole one.

With regard to the point you make, which is likely the case for the tech sector and the measurement of the tech sector, there is a very big difference between Canada and the U.S. Meta, Google, Amazon and Netflix—all of these places that are headquartered in Silicon Valley—have massive valuations and smaller footprints or numbers of workers. Therefore, the revenue per worker is quite high.

I would be interested.... We haven't done this work yet, but Statistics Canada did a study where it looked at the tech sector between the U.S. and Canada. It's not surprising that measurements like GDP and productivity in the U.S. tech sector massively outpace Canada. It would be interesting to look at X tech sector and even at X energy—and we've done that work before—to see what the difference is for the median or average sector or the average person across Canada if you exclude some of those.

I do think you're right that, with the U.S. numbers, there is some exceptionalism in their GDP per worker, and a large part of that is coming from just one small area around California.

● (1205)

The Chair: Thank you very much.

Witnesses, I appreciate your insight and your guidance here for us.

Mr. Estill, I just have to say before we go that I was a big fan of the movie *Wayne's World*, which, of course, is notorious for its selective placement of advertising. I want to simply note that you've taken a page out of that book with that big flag behind you here. I suddenly have an urge to watch *Austin Powers* and *Wayne's World*. I just thought I'd give you some credit for that. I'm always happy to see Canadian companies highlighted.

Witnesses, thank you for your time.

Colleagues, I'm going to suspend very briefly before we turn over to the next round.

● (1205)

_____(Pause)_____

● (1213)

The Chair: Colleagues, we're going to resume our meeting and get things under way.

We have some new witnesses with us today, three of whom are joining us virtually, and one is here in the room.

Appearing as an individual, we have Richard Dias, global macro strategist. Welcome Mr. Dias.

[*Translation*]

From the CCTT network, the college centres for technology transfer, we welcome Ludovic Soucisse, chief executive officer, and Nancy Déziel, chair of the board of directors.

[*English*]

From the Bank of Canada, we have Eric Santor, who is an adviser to the governor.

Mr. Santor, I will turn the floor over to you first, for introductory remarks of up to five minutes.

[*Translation*]

Mr. Soucisse and Ms. Déziel, which one of you will give the presentation?

Ludovic Soucisse (Chief Executive Officer, Réseau des CCTT): I will.

[*English*]

The Chair: Then, Mr. Dias, we'll turn the floor over to you.

Mr. Santor, the floor is yours.

Eric Santor (Advisor to the Governor, Bank of Canada): Thank you very much.

Hello. Thank you for having me here today.

I'll begin with where we are. To be blunt, Canada's productivity record is not great. This is not news to anybody here. This poor performance is not something we can blame on one or two sectors of the economy, or on any particular region. It's a widespread problem across the economy and across the country. We're also getting worse. Over the past five decades, Canada's productivity has deteriorated more than that of other G7 countries, and our performance is particularly bad when compared to our nearest neighbour.

Why does this matter? Productivity allows the economy to grow when resources are limited. It supports higher wages without fuelling inflation. When productivity is rising, everyone benefits from a higher standard of living.

However, as the deputy governor, Nicolas Vincent, said in a speech just last week, Canada right now is “caught in a vicious circle”. Because productivity is lagging, businesses can't increase wages as much as they otherwise would. Slower wage growth means weaker consumption. He said, “faced with [tepid] demand...businesses are...less [likely] to invest in new equipment or technology”. He also said that sagging wages also make it “harder [for employers] to keep our best workers in Canada and to attract...talent from [abroad].”

As the senior deputy governor, Carolyn Rogers, said, we are facing a productivity “emergency”.

While we may all want a quick fix, the reality is that it won't be easy. We need to create the conditions that spur business investment. We need to encourage risk-taking, innovation and growth.

● (1215)

[*Translation*]

We must ensure that our workers have the skills they need to create maximum value.

I will conclude with an obvious point: The Bank of Canada has no direct influence on productivity, but it can play a role in encouraging public dialogue on the issue.

[*English*]

Canada has not always lagged in productivity. In the 1960s and the 1970s, we were a leader.

We don't need to stay in this productivity purgatory. If businesses, governments and Canadians all pull in the same direction, we can escape the vicious circle that Vincent mentioned and reclaim our productivity edge.

The other crucial role the bank plays is keeping inflation low, stable and predictable. There's a lot of uncertainty out there right now. When businesses are confident that inflation will remain low and stable, it makes it easier for them to invest in new technologies, in factory expansions or in the training that could ultimately improve their productivity.

Thank you.

[*Translation*]

The Chair: Thank you very much, Mr. Santor.

Mr. Soucisse, you have the floor for five minutes.

Ludovic Soucisse: Thank you very much.

Mr. Chair, ladies and gentlemen of the committee, thank you very much for welcoming us here today.

My name is Ludovic Soucisse, and I am the president and chief executive officer of the Réseau des Centres collégiaux de transfert de technologie, or CCTT network.

I am accompanied by Ms. Nancy Déziel, chair of the CCTT network’s board of directors. She is also chair of the board of directors of the Canada Foundation for Innovation, and executive director of the National Centre for Electrochemistry and Environmental Technologies, or CNETE, a CCTT in Shawinigan.

We are pleased to contribute to the committee’s work today.

As the previous speaker said, Canada is going through a difficult period, a productivity crisis. Productivity has been declining or stagnating for many years, which particularly affects SMEs, or small and medium-sized enterprises, which make up the vast majority of Quebec’s industrial fabric, which differs from province to province. The vast majority of exporting companies are SMEs. They account for 50% of the country’s private GDP. They structure our supply chains and are particularly vulnerable to tariff measures and the current economic climate.

KPMG described the situation as a wake-up call to improve productivity in the country. Too many companies told the firm that they wanted to review their competitiveness, and more than half said they wanted to move their investments to the United States to protect their access to the market. In a context such as this, it is important to note that exporting companies are the ones most determined to innovate in order to find new markets. We must therefore take this crisis and turn it into opportunities for our SMEs.

The CCTT network is made up of 59 specialized centres, where 2,000 researchers and experts cover the strategic sectors at the heart of our economy, namely advanced manufacturing, energy, agri-food, the digital sphere, critical materials, clean technologies, cybersecurity, artificial intelligence and health technologies.

The figures speak for themselves when it comes to the CCTTs’ ability to help our SMEs. Each year, our 59 centres work on 13,000 projects with more than 6,000 businesses and organizations. With a combined turnover of $200 million, our CCTTs represent more than $1.5 billion in economic benefits. In 2023-24 alone, they worked on more than 1,040 new products for the benefit of clients and more than 600 processes to improve the productivity of our businesses. They also developed more than 240 patents, licences and declarations of invention in collaboration with businesses. The unique feature of Quebec’s college technology transfer centres is that intellectual property is transferred to businesses, which is good for productivity and for keeping intellectual property in the country.

CCTTs are key partners for our SMEs in automating production, improving processes, reducing operating costs, developing new exportable products, obtaining certifications to enter new markets and optimizing supply chains.

We have three recommendations for the federal government.

First, we recommend including applied research in major federal innovation programs in order to explicitly integrate innovation centres, such as CCTTs, into productivity support programs.

Second, we recommend rolling out a Canada-wide rapid support program for SMEs to increase the productivity of thousands of businesses, prevent production transfers to other countries, including the United States, and equip our businesses to access new markets.

Third, we recommend using the government's broad defence industrial strategy to support SMEs in their contributions to supply chains, particularly by promoting applied research and technology transfer in the development of dual-use technologies.

In Quebec, our centres have the tools, infrastructure, experts and network to act quickly. All that is missing are more incentives to specifically target our SMEs. The majority of policies are focused on large companies. By targeting our SMEs and the CCTTs that can support them, we have a better chance of improving the productivity of our economy.

We have the tools, infrastructure, experts and national network to act quickly. All that is missing are incentives for Canadian SMEs.

Thank you.

● (1220)

The Chair: Thank you very much, Mr. Soucisse.

[*English*]

Mr. Dias, the floor is yours for five minutes.

Richard Dias (Global Macro Strategist, As an Individual): Thank you very much.

Good morning, everybody. It's an honour and a privilege to be here. I want to thank the members of this committee for the opportunity to share my views on addressing what the Bank of Canada calls an "emergency", and what I would describe as the single biggest problem that Canada faces.

It's also Canada's biggest opportunity. Our recent record is so poor, there's nowhere to go but up. I would also add that solving Canada's emergency is a rare thing, a panacea, and improving it will also solve many of the problems Canada faces—inflation, high debt, poor health care outcomes, the vulnerability to volatile trading partners and, what I'm most interested in, improving the standard of living of working-class Canadians from coast to coast.

What is productivity? To quote the Bank of Canada, "productivity is a way to measure how efficiently inputs, such as labour and capital, are used to produce a good or service. There are several measures of productivity, but labour productivity is [most common]. This measure is calculated by dividing the value of goods and services produced by the amount of labour [required] to produce them. At a national level, labour productivity is expressed by dividing gross domestic product...by total hours worked."

Now that we understand the definition of productivity, flawed as it may be, how can we improve it? These are my recommendations.

Number one, we need to strengthen human capital. We need to expand training and re-skilling to help workers adopt new technologies and move into higher-value roles, and we need to better align Canada's immigration system with the goal of improving productivity by focusing on attracting and retaining high-waged, high-skilled labour.

Number two, we need to strengthen competition to drive innovation and efficiency. Competition is a major driver of productivity, as cited by the Bank of Canada, but many Canadian markets remain highly concentrated. To do this, we need to be open to foreign competition sectors like telecom, transportation and financial services. We need to reduce interprovincial trade barriers. We need to remove growth disincentives so small and medium-sized firms can scale, and we need to encourage more exports from the sectors that are the most productive.

Number three, we need to encourage firms to grow and, obviously, improve market expansion. Canada has too few large firms, and we need to shape our tax and regulatory systems to help them scale rather than stay small. Number two and number three seem in conflict, but they're not. Essentially, Canada tends to protect its big firms and hobble its small and medium ones, and we need to end that perversion.

Number four, we need to build a more supportive policy and regulatory environment. Policy-setting strongly shapes productivity outcomes, naturally. Some of you may not like to hear this, but as it stands, Canada is a bad place to invest, as demonstrated by the massive net outflows of Canadians and their money. We need to reduce taxes so that the incentives to invest here can compete on a global stage. The Trump 2017 tax cut really hurt Canada, and it's something we don't discuss enough. We need to reduce the regulatory burden around emissions, shifting to a more holistic approach to protecting the environment, including biodiversity, clean rivers and lakes, etc.

Number five, we need to improve business investment in capital, technology and intellectual property. This is by far the biggest issue. There is just not enough private sector investment in Canada. We need to incentivize the private sector to invest more in machinery and plant equipment, increase spending on intellectual property and upgrade infrastructure for scaling and market access. Canada must reverse its chronic private sector underinvestment to improve labour force productivity.

Finally, there must be an admission that although the role of government is absolutely vital to solving this problem, it is also limited. On several important and tangible measures, the federal government is as involved in the economy as it has been in a generation, and the results have been mixed, to say the least. Unfortunately, Ottawa cannot solve this problem on its own, but it can, and I believe it should, create the environment in which the private sector can invest and flourish. This will improve labour productivity growth, and ultimately improve the standard of living of working-class people.

Thank you. I'm at your disposal for questions.

● (1225)

The Chair: Wonderful. Thank you very much, witnesses, for your introductory remarks.

We'll now go into our line of questioning.

Madame Dancho, the floor is yours for six minutes.

Raquel Dancho (Kildonan—St. Paul, CPC): Thank you, Mr. Chair, and thank you to the witnesses for their testimony so far.

I have a few questions for you, Mr. Santor.

Of course, you're the adviser to the Governor of the Bank of Canada, Tiff Macklem. There have really been two concerning visuals coming from the Bank of Canada in recent months and years. The first, of course, was when Mr. Macklem, just last month, while providing a press conference update, said that what's most concerning is that, "[u]nless we change some other things, our standard of living as a country, Canadians, is going to be lower than it otherwise would have been". He did this sort of visual where he showed what it was going to be like before, and what it's going to be like now. It was quite a stark warning, I think, for parliamentarians.

Then, of course, there was the statement by Ms. Rogers in March 2024. You mentioned Ms. Rogers in your opening comments. She is, of course, the senior deputy governor of the Bank of Canada. She said, "You've seen those signs that say, 'In emergency, break glass.' Well, it's time to break the glass." She was, of course, referring to Canada's productivity issues.

Those are two very clear warnings that we're hearing from the Bank of Canada.

Then, of course, your colleague, Mr. Vincent, the external deputy governor of the Bank of Canada, said, "Deep down, Canada's affordability problem is really a productivity problem.... To make things more affordable, we need to raise our income. And the way to grow our income is by increasing productivity." Just so Canadians understand, productivity means their standard of living, really, when we talk about it.

Do you feel that enough is being done? In fact, you mentioned that our productivity was great in the 1960s and 1970s. Would you say that Canada is doing enough to return us to that 1960s and 1970s productivity, or should we be doing more, and if so, what should we be doing?

Eric Santor: What's been highlighted by Ms. Rogers and by Governor Macklem has identified the problem, and this is where we begin. The diagnosis of the problem is very important, so we have to look back and think about how we got here. Productivity is a very complicated issue. Many things contribute to productivity. The things that need to happen.... There are signs that things are in the right direction, such as diagnosing the problem and the fact that it's being talked about—this committee speaks to that. This is very useful.

We need to be thinking about many different things that have happened. This is a multi-faceted problem, and there are many things that need to be done to resolve the issue. In these speeches, we've highlighted several of the things that have contributed to the slowdown of productivity but that, at the same time, can benefit productivity growth going into the future.

For example, one of these things, and it was mentioned in the last session, is that the regulatory burden in Canada has increased dramatically. StatsCan produced a paper on this, noting the rapid rise in regulations over the last...in the pre-COVID era, which has reduced the level of investment in the country. The question then becomes, do we have the right amount of regulation? What can we do to make regulation as effective as possible, and make sure that it enhances the ability to invest? That would be one thing, for example.

Another issue that was mentioned in Carolyn Rogers' speech was the link between competition and productivity. We know that, overall, competitive markets tend to be positively correlated with innovation and investment, and therefore with productivity. The OECD has written on this subject for quite some time, about the issues facing competition in the Canadian economy. They propose measures—we're not the ones proposing measures—and think about how we can enhance competition inside the Canadian economy. In particular, it's important to make sure that the competition.... There's innovation, investment and productivity growth. When you target certain industries, certain sectors, that have network effects inside the economy, they can be particularly beneficial. That was highlighted recently in a speech as well.

I'll stop there.

● (1230)

Raquel Dancho: Thank you.

I appreciate that you brought up business productivity. The Fraser Institute put out some analysis on this, and they said that from 2017 to 2024 our business productivity decreased by 0.6%, whereas that of the U.S. increased by over 10% at the same time.

Of course, we've seen significant capital outflows over the last decade, but in particular since Mr. Trump 2.0 came along, as we know. In fact, it was the National Bank of Canada economist Warren Lovely who said earlier this year, "The cumulative outflow over the latest five-month period is in fact unprecedented". He was referring to the capital outflow.

The Americans are doing something that's attracting a lot of Canadian dollars to invest in their economy. What sorts of things could we be doing or should we be doing to reverse that or at least keep the Canadian investment here? How can we incentivize that?

Eric Santor: Certainly, the U.S. experience gives us some things to think about. The first one is the degree of regulation inside the economy. Again, there's a balance. You need to have the right amount of regulation. You don't want to overdo it in either direction. That's something important, as we pointed out in a recent speech.

The other part, of course, is what's coming from large investments in AI and digitalization in general. Certainly, the U.S. is leading in this dimension globally. We have to look at that experience and think about what we can do to make sure that AI is being used, adopted and developed inside the Canadian economy. This is something that needs to be looked at very closely, and we need to think about how can we benefit from this technology. This is a general-purpose technology that has wide application across different elements of the economy. We have to ask ourselves, do we have the right environment, and are we doing the right things to make sure that we're encouraging that kind of innovation and investment in the digital space?

Raquel Dancho: Thank you.

It's not just the Americans who are doing a bit better than we are. In fact, I believe Canada has experienced the worst per capita GDP growth in the G7 over the last 10 years. It seems that other countries are also doing a bit better than we are in some of these ways. Is it like the U.S., with digitization and AI? What are they doing that we're not?

Eric Santor: There are many different things that go into it. Comparing across many different countries is very difficult, in the sense that there are many different aspects or cyclical features that affect an economy. For example, we had an oil price shock in 2015 that had major implications for our oil sector, and other countries didn't have that. We have to start thinking about what other countries are facing.

The business productivity issue in Canada, as we've described, is an emergency, so we need to be addressing it.

The Chair: Thank you very much, Ms. Dancho.

Mr. Bardeesy, the floor is yours for six minutes.

Karim Bardeesy: Thank you, Chair.

I'll start with Mr. Santor and a question about business investment. I believe one of the objectives of interest rate policy is to play a role in the business investment choices that are subsequently made.

Can you speak to how the bank tracks and evaluates how business investment is done in response to interest rate decisions that are made by the bank?

Eric Santor: To the extent that business investment is tracked as part of the national accounts and feeds into our assessment of where the economy is and where the economy is going in our forecast, we track it very carefully. The means by which monetary policy affects the economy through the transmission mechanism, through its impact on demand and also through the cost of capital is something that we follow closely.

However, the specific characterization of how it works is not the domain of this discussion. This is the conduct of monetary policy, which is the responsibility of the governing council of the bank, and you should refer these questions to them.

Karim Bardeesy: I want to pick up on a couple of Ms. Dancho's questions about differential productivity numbers. In the last panel, we had a chance to look at technology adoption as one of the variables that potentially affect productivity. Do you have any perspectives on technology adoption in Canada as a variable in terms of our productivity performance?

● (1235)

Eric Santor: Absolutely. Technology adoption is actually at the core of productivity growth. In the current context, the adoption of not just AI but also digitalization and automation is a very important thing to consider. The question then becomes, are we creating the conditions and the environment for companies to take those risks, to make those investments and to innovate by adopting new technologies? Again, that goes back to broader issues around regulation, competition and so on.

[*Translation*]

Karim Bardeesy: I have a few questions for Mr. Soucisse and Ms. Déziel.

You mentioned the role of SMEs in the country's economic growth, but in this session, as in others, the lack of large companies has been cited as one of the reasons for Canada's weak economic growth.

Could you suggest some policies that would both help SMEs and encourage the creation of large companies?

Ludovic Soucisse: I thank the member for his question.

Innovation generates productivity, productivity gains and growth. Among the challenges in innovation is the time it takes to implement a collaboration, a research and development project or an innovation project. It is important to be able to create mechanisms or initiatives that will create…. Few SMEs have research and development centres, unlike many large companies. The latter are well structured in terms of research, development and innovation. SMEs, especially those with fewer than 50 employees, are obviously less so. If we want to reach out to them, we need to go where there are strengths in economic and civil society to support them. College centres for technology transfer, or CCTTs, are among the organizations that work very well with SMEs on short programs, short contracts of two, three, four or six months, and that transfer intellectual property. That said, in a larger-scale collaboration, the sharing of intellectual property and the duration of an innovation will be among the challenges to be addressed.

So, if we realize that a crisis is looming and that we will need to increase productivity over the next two or three years, we must invest in the strengths of our ecosystem and in more technical or applied collaboration. This is a positive factor for both small and large companies.

Karim Bardeesy: Are there any programs you would recommend in Canada? The Canadian government uses the Mitacs program, for example, which helps bring research-based innovations to businesses. Can you recommend any other programs?

Ludovic Soucisse: The Mitacs program is also talent-based.

I can let my colleague, Nancy Déziel, executive director of the National Center for Electrochemistry and Environmental Technologies, or CNETE, tell you about the programs.

Nancy Déziel (Chairman of the Board of Directors, Réseau des CCTT): Actually, the programs used are mainly interactive visits by the National Research Council of Canada Industrial Research Assistance Program, or NRCC-IRAP. They are very popular with small and medium enterprises, or SMEs, that have about 100 or more people. SMEs, as well as Canada's colleges, widely use applied research and development programs by the Natural Sciences and Engineering Research Council of Canada, or NSERC. These programs help optimize what our universities develop, make it industrializable, validate the technology, bring it up to scale, transfer it to the company, help with factory-level implementation, launch a new process or produce a new product, and train staff to support them as they implement it.

That means many steps occur between what comes out of universities and what businesses can implement. The college centres for the transfer of technologies, or CCTTs, as well as Canada's colleges, are there to do it.

Karim Bardeesy: I see.

Are there any policies intended to attract even more intellectual property, especially to universities?

Nancy Déziel: The truth is that SMEs are reluctant to use patents. It's important to note that the CCTTs announced 240 inventions this year, which is the equivalent of very large universities, and they sold them to the market. However, most SMEs feel unable to defend their patent when it's copied, be it nationally or internationally. That's why they ask us to work under the seal of trade secrecy. It means a portion of the numbers on innovation that reach you are underestimated.

The Chair: Thank you very much, Mr. Bardeesy.

Mr. Ste-Marie, the floor is yours for six minutes.

● (1240)

Gabriel Ste-Marie: Thank you, Mr. Chair.

I welcome and thank all the witnesses.

My questions are for the representatives of the college centres for the transfer of technologies, or CCTTs.

Hello, Mr. Déziel and Mr. Soucisse. Thank you for being here.

With your presentation, we understand how much CCTTs help boost SMEs' productivity. Could they do more? In short, what is the potential capacity for CCTTs?

Thank you.

Ludovic Soucisse: CCTTs could do so much more. I would say that, due to various other government decisions and the current market's slight contraction, we could almost double their potential in 12 months, especially given their ecosystem's maturity, thanks to good programs and targeted investments in collaborative programs. Our centres are just waiting to be called upon to do more for SMEs and the economy's strategic sectors.

However, we must remain aware that this capacity is not simply a matter of their willingness. We must also take market realities into account. One of the government's levers is to create one-off programs or initiatives to stimulate collaboration between SMEs.

The Chair: Mr. Ste-Marie and Mr. Soucisse, I'm sorry, please wait a moment. An MP says he cannot hear the interpretation. We will find a solution.

Mr. Guglielmin, I'm doing a little test to see if it's working. Yes? Okay.

I'm sorry, Mr. Soucisse, you may continue.

Ludovic Soucisse: Thank you very much.

I was saying that it's not just up to CCTTs to wait for something miraculous to happen. They're entirely ready to do more. They have to deal with the current context, which is challenging on a fiscal and budgetary level, as well as on an economic level, so businesses hesitate to invest.

That means boosting business investment is going to take targeted programs. The Natural Sciences and Engineering Research Council of Canada, or NSERC, had a program specifically targeting co-operation between businesses and Canada's colleges, including college centres for the transfer of technologies, in Quebec. However, the last federal budget didn't renew its funding envelope of $108 million over three years. It should be put back on the table, not only to ensure the CCTTs survival and that of its infrastructure, but also to improve the ability of organizations and companies to work together.

There's also everything to do with defence. The federal government is rolling out a huge industrial defence strategy, which will spread into the provinces. It's important to make room for applied research centres and promote consistency between businesses, as well as to work on products or services that add value to the industrial sector's global supply chain.

When tariffs or macroeconomic situations hit industries hard, they need support through initiatives that help them be more innovative. CCTTs are there to support businesses who need an overhaul or need to create new products and services. There are all kinds of ways to get there. It's a dance between both levels of government, which also provide funding for these centres and initiatives. However, it's clear we can do more.

Gabriel Ste-Marie: I see, thank you.

So, you act as a driving force for innovation and research, and you could potentially double your output, but you're telling us that the last budget cut your $108 million funding envelope.

Do you think the federal government recognizes the real value of the role CCTTs play?

Ludovic Soucisse: I think the focus was on different things in the last budget. The college centres for the transfer of technologies, and small and medium businesses in particular, would be very happy to see that $108 million funding envelope renewed. There's no doubt about it.

The important thing is to set up relevant policies, depending on the context. NSERC's program, funded with $108 million over three years, was a pandemic response. We think it's still relevant, given the restructuring and crises with our most important trading partner. We would therefore be very pleased to see this program renewed.

Of course, room must be made for applied research and colleges, which are SMEs' most important associates. They work more with Canada's colleges, including CCTTs, than with universities, because working with them is easier and faster. Furthermore, the collaborative intellectual property model suits their reality better. In short, the more programs suit this reality, the better it is for everyone.

● (1245)

Gabriel Ste-Marie: Thank you very much.

You talked about the potential opportunities available to college centres for the transfer of technology, or CCTTs, in relation to the defence industrial strategy. AI is another area of interest. In 30 seconds, can you reiterate the importance of CCTTs to both of those sectors?

Ludovic Soucisse: Yes. I spent five years at Mila, so I'm very familiar with the AI sector. Clearly, it's all about talent. Small and medium-sized businesses need to do a better job of building their capacity to incorporate AI in their operations. One of the challenges all sectors and all businesses, but especially small and medium-sized ones, are going to face will be scaling up and upgrading employee skills in terms of the capabilities AI offers. Fully understanding them hinges on training.

CCTTs are definitely equipped to work with businesses in Quebec to provide training and help them understand how AI can support their processes and procedures. Colleges can do the same for businesses in the rest of Canada. AI is one of the keys to tomorrow's productivity. Anyone who isn't working on that is already too late. None of the strategies that have been put forward focus much on that, but the potential is there.

Gabriel Ste-Marie: Thank you very much.

The Chair: Thank you, Mr. Ste-Marie.

[*English*]

Colleagues, before we go to Mr. Guglielmin for five minutes, we're tracking quite a bit over the time at the moment. As of right now, just so both sides are aware, we'll be cutting the final two. I'll keep an eye on the clock, but let's make sure everybody tries to do their best to keep to the allotted time, please.

Mr. Guglielmin, you have five minutes.

Michael Guglielmin: Thank you, Chair.

Mr. Dias, you said that Canada faces a productivity emergency, high debts and capital flight. You've also said that the government's economic footprint "is at a 30-year high, at the same time as we face a productivity emergency", suggesting that it might be "time for a change in philosophy." Earlier this month, McKinsey had similar findings. They said that the general government gross debt has climbed to about 107% of GDP, with debt charges now a top-five line item in public spending.

Mr. Dias, do you think we have a debt problem in Canada?

Richard Dias: That's a very difficult question.

Canada is and should be one of the richest countries in the world. We have enormous oil reserves. We have enormous natural resources. I think what we have done really is squander a lot of that. When you ask if we have a debt problem, I think we have an interest payment problem. It's an increasingly large share of our revenues. I think we mostly have a spending problem. I'm not sure if we have a debt problem necessarily, if that makes sense.

There's some nuance to that question, as I think any economist would suggest.

Michael Guglielmin: Yes, that's helpful.

The federal government's budget came out recently, and it says the deficit will be $78 billion. Do you think it will remain $78 billion, or is it likely to be higher?

Richard Dias: No, sir. That deficit projection is based on some relatively rosy, albeit normal, forecasts for growth. The problem is that those interest payments, and more importantly the revenue payments that sort of underpin those interest payments as a percentage of GDP or as debt, are based on those rosy forecasts. If anything goes wrong or whatever, you'll have a situation where the revenues won't be as strong as they are suggested in the budget, and the debt and therefore the interest payments will necessarily rise rather quickly.

Michael Guglielmin: What are the consequences if the Liberal government blows past its fiscal anchor of a declining debt-to-GDP ratio?

Richard Dias: I think in general what it means is that on the margin—again, everything is at the margin, which is where we live as economists, and I think that's what we should be focused on—it will mean basically higher interest rates and higher inflation. That is not to say there aren't other things that may happen at the exact same time that will pull down on inflation. For example, if there's lower aggregate demand because of a recession, you might have a situation where deficits rise substantially and you have weaker inflation.

The issue is not necessarily how much revenue the federal government is collecting. We know that, as a percentage of GDP, it's at a 25-year high, at about 15%. The issue is where that money is being allocated. I would submit to you that in the current budget's own admission, an 8.1% increase in program spending was not necessarily as effective as I think it could have been, as demonstrated by having zero productivity growth over the last 10 years.

● (1250)

Michael Guglielmin: You've also warned that young Canadians are being gaslit about the economy, and that even if the U.S. tariffs were to vanish tomorrow, we'd still have structural problems, for instance low productivity, high indebtedness and heavy foreign ownership of our bonds. The Bank of Canada, as we heard here, now directly links the Canadian affordability crisis to productivity growth.

Can you explain what it means when you say Canadians are being gaslit about the economy? What do you see as the real drivers of our productivity stagnation and capital flight?

Richard Dias: I think two things can be true at the exact same time, and we have a hard time sometimes holding two opinions that may seem contradictory but are in fact complementary.

Donald Trump's protectionism is completely unjustified, and I want to make that very clear. However, virtually every single problem that Canada is dealing with is a structural problem that has been entrenched for years. What's really important is that we need to be focused on the big picture. Donald Trump won't be president forever. Trade relations will normalize. However, things that we've discussed in this meeting and others will not necessarily go away, such as the deficit issue, housing affordability, productivity emergency and the chronic lack of business investment, which is what I think is fundamentally the real issue underpinning all of these productivity conversations.

I mean, all of that was true when the Bank of Canada's senior deputy governor, Carolyn Rogers, wrote what I think is probably the most important speech in Canadian economic history, about the fact that we are suffering a productivity emergency. Mr. Vincent basically reiterated all of her suggestions as to how we can fix it.

As for the focus on Donald Trump, maybe it's a pyrrhic victory on his part, because if we can coalesce around how to solve these problems, when he disappears, Canada can be repositioned, at least philosophically, to do the right things.

The Chair: Thank you very much, Mr. Guglielmin.

Mr. Bains, the floor is yours for five minutes.

Parm Bains (Richmond East—Steveston, Lib.): Thank you, Mr. Chair.

Thank you to all our witnesses joining us today.

I'm going to start with Mr. Santor.

We had a panel earlier. They talked about how hard it was to do business overseas. There are challenges around peer-to-peer transactions, and there's been talk about introducing stablecoin. I'm curious to hear a little bit about that from you. If you look at peer-to-peer transactions, cross-border payments and remittances, and if we can see a strong adoption in emerging markets like Latin America and Africa, where financial infrastructure is limited, do you think the immediate nature of stablecoin transactions and their adoption in emerging markets can be useful for Canadian businesses as they seek to grow and enhance productivity?

Eric Santor: Yes. In Carolyn Rogers' recent speech on productivity, she highlighted the need for innovation. Particularly, innovation matters a lot inside the financial sector, because the financial sector touches every part of the economy. If the financial sector becomes more productive and more efficient, that can benefit the entire economy.

Stablecoin represents a very interesting innovation. People are still thinking about how it's going to work, what it's actually going to look like in practice and how it can be used. It certainly provides the potential for being one example of the kind of innovation that can benefit efficiency inside the financial sector, which could then spill over to the rest of the economy.

However, we need to be very mindful of how this is going to be regulated and make sure that it's fit for purpose and fit for use. This is a very active file globally, to think about how stablecoins can or will be part of the financial system going forward.

That's just one example, but there are other examples of how continued innovation inside the financial sector can benefit the economy more broadly. That's something she mentioned quite explicitly, given this network and its importance inside of what we do.

Parm Bains: Building on that, we know—and there's been a lot of talk, of course, and not only today—that we're witnessing an important time, probably, in global history and global business, with disruptive policies of our neighbours and trying to friendshore with others. We know that our Prime Minister recently has had some success at the G20 trying to ensure that we can diversify our markets.

With respect to a lot of the disruption in global shipping lines and all of these things that we're noticing in a more dangerous political environment, how do you think Canada can position itself to attract high-value, high-opportunity investment and continue to work towards being a global leader in these new strategic areas?

● (1255)

Eric Santor: The global economy is undergoing a large reconfiguration of global trade. At the same time, the AI revolution is also providing a big structural shock to what's happening. I think the things that lean towards improving productivity here in Canada are the things that would speak to what you're concerned about.

To the extent that we have the right regulatory framework and we have an environment that provides regulatory certainty and the right level of regulation and, at the same time, provides the right amount of competition inside the economy, as I mentioned before, this will provide the ecosystem in which Canadian firms and businesses can make those decisions to innovate and invest and make them resilient in a world that's going to be full of shocks, as we say in economics, in the coming years and decades.

To position ourselves to be that resilient, we need to take those measures that will improve our productivity.

Parm Bains: Are there specific sectors in Canada doing industrialization in a new way with natural resources, financial services and other technologies? I know we've talked about AI and quantum computing. There's been a significant investment in my home province of British Columbia. The University of British Columbia is seen as a leader in AI.

What are some high-potential measures or industries that you can think of where we can enhance productivity?

Eric Santor: As noted in the speech, improving the productivity in industries that are network-based, such as communications, finance and transportation.... Those are high-impact areas, because their productivity gains also spill to the rest of the economy.

More generally, AI provides a perfect example of a general-purpose technology that can be used almost anywhere in the economy to improve things. The question is this: Do we have the right mix of things we need to make that happen? I think we need to emphasize that it's not just the regulatory environment and competition, but also whether we have the right skills inside our workforce to take advantage of that. It goes to making sure we have the right skills match, as we say, to take advantage of those technologies.

[*Translation*]

The Chair: Mr. Ste-Marie, you may go ahead for 60 seconds.

Gabriel Ste-Marie: Again, my question is for Ms. Déziel or Mr. Soucisse.

Is project-based funding for applied research an issue for you?

Nancy Déziel: Businesses don't have a lot of money to pursue innovation. In many cases, they have ideas, and the first thing they want to do is start that ideation and, then, go a bit further with a strategic plan. Yes, project-based funding is definitely critical to help them start that process.

However, in terms of CCTT sustainability, a lot of groundwork has to be laid and a lot of reporting requirements have to be met. What we, as a centre, would like is to receive funding to help us work with our business partners. We would, of course, show proper accountability to ensure that taxpayer dollars are being used efficiently. That way, we could plan the work we do with businesses.

Keep in mind that CCTTs work with some 6,000 businesses. Each CCTT usually works with a hundred or so businesses each year. Submitting an application for every project is a tremendous amount of work, and those efforts would be better spent on more tangible activities.

Gabriel Ste-Marie: Thank you.

The Chair: Thank you, Mr. Ste-Marie

I'd like to thank all our witnesses today. You gave us a lot of insight.

[*English*]

Colleagues, we will meet again on Wednesday.

The meeting is adjourned.