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**Chair**

**Mr. Massimo Pacetti**

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• (0940)

[English]

**The Chair (Mr. Massimo Pacetti (Saint-Léonard—Saint-Michel, Lib.)):** Good morning, everybody.

I want to thank the groups for being patient. We are ready to start.

As most of you are aware, I will allow you five minutes for your opening remarks or opening statement, then we'll give an opportunity to members to ask questions.

I have a list of groups and I will go in that order. The first group is Association canadienne des producteurs pétroliers, Monsieur Alvarez.

**Mr. Pierre Alvarez (President, Canadian Association of Petroleum Producers):** Thank you very much, Mr. Chairman, and good morning.

It is our pleasure to appear before you this year and do the compressed budget cycle. We understand the need to hold the hearings in Ottawa. We hope to see you in western Canada and the rest of the country next year, as has been the case in the past.

I submitted my presentation some time ago, Mr. Chairman, so I won't go through it in detail, but I would like to cover three points. One is a general overview of the oil and gas sector. The second is a summary of our position on the surplus allocations. And finally, I'd like to mention two or three specific budgetary measures.

On page 3 of our submission we show graphically the overview of the economic footprint of the oil and gas industry using price forecasts on average from 2003 to 2005. Essentially, it shows an industry with an excess of \$80 billion in revenue, of which \$20 billion is paid directly to governments in the form of royalties, taxes, and other direct payments, \$31 billion in capital expenditures on an annual basis, \$20 billion in operational expenditures such as wages, benefits, rents, rentals, etc, and \$9 billion in foreign expenditures, dividends, and distributions to shareholders and income trust holders, an increasing number of which are held in pension funds.

These numbers are the result of Canada's impressive endowment of petroleum resources and also hundreds of billions of dollars of investment from investors in Canada and abroad, but perhaps most importantly, the creativity and ingenuity of the 500,000 Canadians directly or indirectly working in the sector. However, maintaining this record of success is not easy. On a global scale, our resources are harder to produce, require more processing, and must increasingly compete for international capital. For these reasons, competitiveness and productivity are key to our sector.

To improve Canada's ranking in both these areas, our association believes that federal surpluses should be divided into three broad areas: accelerated debt reduction, corporate and personal tax reductions, and finally, targeting spending on priority areas such as human resource development as well as research and development, including oil and gas. These two areas of spending are key to help reduce the cost of projects while at the same time improving our operational and environmental performance.

We share this point of view with many of Canada's other business associations and sectors that have been here previously and I'm sure with many of my colleagues from the other resource sectors who are here today.

We share many specific measures as well. I'd like to mention three. The first is the need to implement many of the recommendations of the External Advisory Committee on Smart Regulation. The second is restoring the Atlantic investment tax credit to 15% and broadening its tax base to complete some of the reforms that were begun with the tax reduction bills that have been passed in the last two or three years. Finally, confirming the cost to comply with carbon dioxide emissions targets will be addressed in a manner consistent with other comparable operating and capital expenditures.

Mr. Chairman, as page 7 of our submission highlights, the social and economic benefit to Canada of our sector places the oil and gas industry in Canada's top economic tier. Sound economic policies and market-based regulations have tripled our sector in the past 15 years. We can continue to grow our contribution to Canada and look forward to working with all members of Parliament toward this outstanding opportunity.

I think I have saved a couple of minutes for my colleagues, Mr. Chairman, and I look forward to questions later on.

Thank you.

**The Chair:** You have a minute and a half.

**Mr. Brian Maynard (Vice-President, Public Affairs, Atlantic Canada, Canadian Association of Petroleum Producers):** Thank you.

I have nothing further to add to Mr. Alvarez's comments.

**The Chair:** That's great, thanks. That is not because of quality but in terms of time. Thank you very much.

The Canadian Wind Energy Association, Mr. Estill.

**Mr. Glen Estill (Past Chairman of the Board, Canadian Wind Energy Association):** Thank you very much, Mr. Chairman.

The Canadian Wind Energy Association represents the interests of 150 manufacturers, consultants, and developers in Canada's wind industry. Canada has an enormous potential for the development of its wind energy resources. Quite possibly, we have the world's number one potential for development of wind resource. We have the world's second-longest coastline, and coastal areas tend to have good winds. We have the world's second-largest land mass; we have lots of places to put wind turbines. We have cold weather, which is denser and has more energy in it, so we have a more abundant wind resource.

Importantly, 60% of the electricity generated in Canada is generated by hydroelectricity. One of the challenges with implementing large-scale wind energy is what to do when the wind isn't blowing. Well, we already have the batteries in place, called hydroelectric dams, which can store water when the wind is blowing and let the water through when the wind is calm.

So we probably have the world's best wind resource, but in terms of our implementation of wind energy in Canada, we rank very low.

The wind industry has quadrupled in the last five years, which has driven economies of scale and brought costs down. Costs of generating electricity from wind energy have dropped by 80% in the last 20 years. The estimates are that the worldwide wind industry will be a \$37 billion industry by 2010. But we are way behind. We are behind such notable countries as Greece, the Netherlands, and Denmark, where they generate 20% of their power from wind, and even Portugal. When you compare Canada's 439 megawatts with Germany's 16,000 megawatts, you get an idea of where we stand in the world.

Wind can be a very substantial supply of energy for Canada and can contribute greatly to our economic development. Every megawatt invested in wind energy generates \$1.5 million in investment and two and half direct jobs and eight indirect jobs. In addition, this economic development happens in rural areas. Do you not think that maybe the potato farmers of P.E.I. or the wheat farmers of Saskatchewan or the beef farmers of Alberta could use a little bit of lease income from the development of their wind resources?

And all of this is done without contributing to climate change, with no long-term storage of toxic waste, no mercury depositions, no acid rain, and no smog. So it's an ideal source of energy for the 21st century.

Provincial governments in Canada have committed to building approximately 5,000 megawatts of wind energy by 2012, but they do need the federal government as a partner. We have to make sure that we move from provincial announcements to iron in the ground. One of the key things that we believe is important is that this be done now. European manufacturers are looking for a North American base for manufacturing; they want to avoid the currency risks and freight costs of bringing turbines into North America.

The U.S. policy environment on wind is a mess. Their latest production tax credit expires at the end of 2005. It's an incredibly unstable place to invest. Canada can do better, and we can win in the

wind energy market if we follow the initiatives we're about to suggest.

CanWEA has three initiatives it's proposing. The first is a quadrupling of the wind power production incentive. This was announced in the throne speech and we hope it is followed through on. It's important that the incentive be kept at the current 1¢ per kilowatt hour.

When you think about major energy initiatives in Canada, you might ask, "Is there a federal role in this?" But if you look at major initiatives that have been undertaken, whether it's the development of the Trans-Canada Pipeline, the development of the tar sands, the development of east coast oil, the development of the CANDU system, or today's investments in hydrogen, the federal government is there, and we need to be there for wind energy.

Another thing you might ask is "Why 4,000 megawatts; why do we have to quadruple it?" The reason is that we need to make sure we demonstrate to European manufacturers that we do have a large or sizable market opportunity. If we have that market opportunity, they will build factories and jobs here.

You could say, "We only want to do 2,000 or we want to drop below 1¢ per kilowatt hour", but that would be a little bit like building the Trans-Canada Pipeline and saying "We're going to support that pipeline and we're going to let it go all the way as far as Wawa". You've built a pipeline, but you haven't solved any of the nation's energy problems, and we need to get over that hurdle with wind energy.

The cost of this proposal is \$780 million over 16 years. It's important to point out that the early or near-term impact of this proposal is quite small. We're estimating it to be \$23.6 million in 2005, rising to \$78 million by 2009.

•(0945)

The second major initiative is the need for a review of how the current incentives for wind energy work together. There are basically two current incentives for wind energy. There's the Canadian renewable conservation expense and there's the wind-power production incentive. When you have one, you can't use the other. We believe that one is an incentive for the development of capital, the other is an incentive for the market. The third proposal is on greenhouse gas trading. There's talk that if you have wind-power production incentives, you won't be entitled to participate in greenhouse gas trading. We believe that is wrong and is not going to encourage development of wind.

The third initiative is to engage Canadians and communities. This is a fairly low-cost initiative, estimated at \$60 million over five years, and includes the development of a federal coordinating body. There are ten different ministries that touch on wind energy at various times. They need to coordinate their actions. We need a national wind coordinating committee to work on issues of common interest to utilities, the provinces, and the federal government. We need public education and outreach, and we need a remote communities initiative, so that we can use wind energy to stop the use of dirty diesel in our northern communities.

Thank you very much.

• (0950)

**The Chair:** Thank you.

[*Translation*]

The Chair now recognizes Mr. Lazar from the Forest Products Association of Canada.

[*English*]

**Mr. Avrim Lazar (President and Chief Executive Officer, Forest Products Association of Canada):** Thank you, Mr. Chair.

You already have our submission. I'm only going to talk about one thing, Canadian jobs in the forest industry and the Canadian dollar.

Jobs in the forest industry account for approximately a million people's livelihoods. Those jobs are among the best jobs in Canada. They pay almost double the average wage, and they're out in the rural areas. When we close a mill, it's very hard to find new jobs in those rural areas. They're good jobs and they're high-tech jobs. They're jobs with real dignity, and they're the backbone of respectable work in the rural area.

The jobs come from exports. We export 80% of what we make. There have been two myths, two big lies told about the Canadian dollar and exports. One is that it's not hurting exports. That's doing policy by looking backwards. Of course, exports don't drop right away. What determines exports is investment, and capital is the most mobile part of what determines competitiveness. For every penny the dollar goes up, \$500 million comes out of Canadian pockets, and \$500 million from the forest industry is no longer available for investment. Now, if you have a pile of capital and you're deciding where to put it, when the dollar was down, you put it in Canada. With \$500 million for every penny, that comes out to \$10 billion at 20¢. Then you look south of the border and think maybe you should put it in the United States.

To say that the Canadian dollar isn't hurting exports is like the guy who jumps off a 50 storey building and says so far so good, so far so good. You have to look at what's coming. If the high uncontrolled rise of the dollar leads to a reduction in investment, it's going to lead to a reduction in jobs. The first myth, that it's not hurting exports, is looking backwards. If you look forward, you look at investment, and you realize it's going to hurt us a lot.

The second myth is that industry has been hiding behind a weak dollar. Our industry is the most successful forest product exporter in the world. No other country does as well. Commodity prices are going down. Brazil, China, and Russia have been competing with us, with cheap fibre and cheap labour. We've still done well because we've increased productivity more each year, more than the U.S. and more than the rest of Canadian manufacturing. We're a very productive, competitive industry. That's how we've stayed alive.

But it's not only the industry's productivity that determines competitiveness, it's also the business climate. Government controls how many trees we get and at what cost. We are the most heavily taxed forest industry in the world. We have federal-provincial duplication in regulation. We have the Competition Bureau trying to keep our companies smaller than the competition overseas. We carry on our backs the collection of social rents and the effect of inefficient regulation across the country. Over the last 10 years, our industry has

become more and more efficient and government policy has hardly changed at all. It has been government policy that has been hiding behind the weak dollar, and it's time that we all stood up and did something about it.

In our submission, we list several things that could be done. Let's move the large corporation tax more quickly. Let's deal with smart regulations now and not just talk about it. Let's bring the Competition Act into the 21st century. Let's deal with trade barriers, and let's invest in R and D.

Thank you.

**The Chair:** Thank you.

The next group I have is the Mining Association of Canada.

Mr. Peeling.

**Mr. Gordon Peeling (President and Chief Executive Officer, Mining Association of Canada):** Thank you, Mr. Chair.

I'm Gordon Peeling, the president and CEO of the Mining Association of Canada, and I'm pleased to be here today to convey our priorities for the upcoming federal budget.

We're a national association. Our industry employs 389,000 Canadians across the country, many in remote and rural parts of Canada. Our production accounts for 4% of gross domestic product. So we are a large industry.

I will limit my remarks today, since you have had our submission, to just three priorities: debt reduction and expenditure management, creation of a more competitive tax system, and measures to enhance exploration investment across Canada.

On debt reduction and expenditure management, MAC supports the recent target established by the federal government to reduce the federal debt-to-GDP ratio from its current 41% level to 25% by 2013. We believe the target is reachable by committing to debt reduction any unanticipated surplus and unused portions of the contingency reserve and reserves, for economic prudence. The clear focus on debt reduction has paved the way to a meaningful decline in the federal debt-to-GDP ratio. And while not always considered politically attractive, it would be folly to ignore our \$35 billion in annual debt charges, which currently represent 19% of every revenue dollar collected.

In achieving our economic and social objectives, a key priority is how the federal government manages taxpayers' money and allocates limited budgetary revenues. A renewed commitment to debt reduction will increase the share of budgetary revenues that can be safely directed towards increasing our standard of living and quality of life in the future.

In light of a series of spending commitments in recent months, it is vital that government remain disciplined, avoid the urge to spend excessively, and ensure that government spending does not exceed the rate of gross domestic product growth. Through permanent and rigorous program expenditure reviews and the sound management of budgetary revenues, Canada can open the door to creating a more competitive country that is able to attract investment, create jobs, and foster business and wealth creation.

With regard to the tax system, the federal government has taken an important step towards building a competitive tax system by reducing the rate of corporate tax for all sectors of the Canadian economy. However, as we strive to increase our share of global investment, these measures should not be viewed as the end, but rather as the first phase of creating a clear competitive advantage.

To build a more favourable investment climate, the federal government should minimize the corporate income tax gap between resource industries and other industrial sectors during the remaining phase-in period. The current gap this year is 5%, and that won't be eliminated or reduced to zero until 2007. We would like to have that schedule moved up and achieved more quickly.

We also would like to see an overall objective of reducing the corporate income tax rate from 21% to 17% for all industrial sectors, if we're truly going to create a tax advantage in North America. Otherwise, we will continue to lose out in a very mobile and competitive capital world to the United States and other jurisdictions.

We need to immediately eliminate the federal tax on capital to stimulate investment, technology, and innovation, rather than delaying elimination until 2008. It is one of the most regressive taxes in the system. It's a disincentive to innovation and productivity improvements. Of course, we are working to see that provincial governments also move in this direction. Some of them have, but again the timeframes are far too long.

On exploration, four years ago the federal government recognized the importance of encouraging investment in Canadian mineral exploration by introducing a temporary super flow-through share program. Although successful, without a strong, committed focus toward attracting exploration investment our base metal reserves are at risk of reaching critically low levels. Given the lag between exploration and production, action must be taken now, or many of our mines and value-added smelters and refineries will risk permanent closure. Even today, many of our facilities have already reduced production because of a lack of domestic feed, or are maintaining production by importing foreign concentrates, which is an increasingly costly challenge in the face of explosive demand for concentrates from China.

China represents many challenges and not quite a level playing field. That is a real concern to us, and we would echo the comment of the Forest Products Association on barriers to trade and access to capital.

• (0955)

The only solution for us is to renew our ore reserve base through increased exploration. To do this, we recommend the government make the super flow-through share program permanent, take it out of

the business cycle, and put some certainty into the system; then we won't have to come back worrying about whether we are going to get an extension past 2005, and whether that will be just to 2006, etc. We need a longer-term planning horizon.

We also suggest increasing the qualified exploration and investment tax credit from 10% to 20% to stimulate exploration at and around existing mines. That came in with the 2003 budget. The 10% was partial compensation in realization that the removal of the resource allowance would have different impacts across the industry and that some would be harmed by that removal. But in actual fact, that 10% is not at a level that does the job. It should be juiced to 20%.

We need to establish a formal industry-government process with a mandate to modernize and clarify the 50-year-old definitions of "Canadian exploration" and "development expenses". As you will know, on the aboriginal side, with a number of decisions in the Supreme Court, it is good business practice and it's necessary for us to consult in many parts of Canada with communities. That represents an exploration cost that does not fall within the expense definition. This is just one example where we need to upgrade and update the definition to make Canada an attractive site for exploration expenditures.

I'll close with that. Those are the key areas I wanted to touch on. You have an elaboration in our submission.

• (1000)

**The Chair:** Thank you.

*De la Fédération canadienne de l'agriculture, nous avons Monsieur Shauf.*

**Mr. Marvin Shauf (Vice-President, Canadian Federation of Agriculture):** Thank you, Mr. Chairman.

My name is Marvin Shauf. I'm a vice-president of the Canadian Federation of Agriculture. I want to thank you for the opportunity to present to you here today.

The major theme of our message today is that Canada must invest in agriculture strategically and give Canadian producers the necessary tools to succeed and compete globally to both build and retain value in the Canadian economy.

The word “strategically” is a very important word. We have had income issues in agriculture in the past and we certainly have income issues in agriculture today. We have problems that are related to BSE and market access, as you're certainly aware. We have production issues in some places due to weather-related frosts and droughts and those kinds of things, but we also have a need for and a necessity to create the tools that help producers compete with producers in other countries.

A week ago, with some assistance from Agriculture and Agri-Food Canada, we put on a farm income symposium in this city to look at what our income issues really are. It was interesting to find out that in many cases we are not just competing in the marketplace; we are competing with treasuries in other countries. To the extent that Canada provides support for producers, Canada uses a very different strategy to provide support for production and for the rest of the industry in this country, and it makes Canadian producers and in fact the rest of the industry less competitive in the export market and within Canada.

Relative to BSE, there are issues of market dependence—and over-dependence, in fact, on one particular market—and there are some strategies that need to be employed to make the beef industry more competitive, less vulnerable. We need to reduce the dependence on the U.S. market. Part of doing that requires that some processing facilities be put into the system in Canada.

Even if we achieve market access to the United States and various other countries, we still have issues with the mature animals in this country. We need to have processing capability within this country to deal with them. Those animals at this point exist in large numbers. They're expanding our problem with animals that don't have a home in the marketplace. We need to have a strategy to deal with them, in terms of facilities. We would encourage that government invest in facilities initially and have a strategy for them to roll over to producers, so that there's producer ownership of some of those facilities over time.

Market development is something we clearly need to have some investment and energy spent on, in terms of building a home for some of this commodity so that we can increase its value within the context of Canada, increase the value within the industry, and have a higher-valued product to sell into the international marketplace than we currently have in exporting raw commodity.

One further issue we have is related to the program provided for Canadian producers for income support at this point, called the CAIS program. There is an issue in that program, which requires producers to put up a deposit to participate. That particular deposit never has made any sense; it never will make any sense; and it in fact reduces the ability of some producers to participate. It reduces the effectiveness of the program, and the administration of that program requires significant dollars.

•(1005)

There is no useful purpose or reason for that deposit to exist. All government members we've been able to talk to and opposition members have agreed it needs to go away, and it hasn't as yet done that. There is no budget implication in that deposit being removed; it's just a sensible thing for it to be removed, and sooner would be better than later from everybody's perspective.

Very quickly, I want to talk about several things we would encourage government to do.

We would encourage government facilitation in development of strong farm organizations and cooperatives. We would encourage investment with producers to promote and develop producer ownership in value-added processes, such as the processing in the beef sector that I mentioned earlier. We would encourage investment with producers to promote and develop new markets. And we would encourage investment in producers to increase the competitive capacity of Canadian farmers on the world stage.

There are a couple of other programs in existence within Canada right now relative to environment and relative to food safety. There are strategies that are being employed in other countries. There are investments that are being made in those initiatives in other countries, and we would very clearly encourage Canada to make strategic and competitive investments in those areas.

Thank you very much, Mr. Chairman.

**The Chair:** Thank you.

From the Canadian Electricity Association, we have Mr. Konow.

**Mr. Hans Konow (President and Chief Executive Officer, Canadian Electricity Association):** Thank you, Mr. Chairman. I appreciate the opportunity to appear before you again this year.

The Canadian Electricity Association represents the industry nationally and the full value chain from production through to delivery to the customer. We employ in the range of 85,000 people and have about \$150 billion in capital stock currently. We deal with a wide range of issues of interest to our members.

Specifically with respect to the submission—and I believe you have a copy of our pre-budget submission that was handed around today—the electricity supply and delivery system has historically been reliable, secure, and cost-effective. It has been one of the key competitive advantages the Canadian economy has enjoyed historically in underpinning our constant production. It has also been a significant exporter.

Canadians expect this performance to continue into the future, but to do so will require significant capital investment. The investment in new supply and new transmission has declined over the last ten years, and as a result is having difficulty keeping up with an annual demand growth rate of about 1.5%.

I would add that if you track the net export data on our industry, you will see a precipitous fall in terms of our position as a net exporter of electricity. We have probably as many jurisdictions today that are net importers as are net exporters. Even some of our traditionally strong export jurisdictions like Quebec and Manitoba, with their large hydro bases, either have become temporary net importers—in the case of Manitoba, largely due to drought—or will face the prospect of becoming marginal net importers, as is the case in Quebec, waiting for the next series of major hydro construction to come on stream. So we are more of an integrated part of a North American electricity system than we are simply a producer and exporter of electricity.

If we look at our forward projections of requirements over the next 16 years—we did this back in 2000, looking forward to 2020, so for us it was a 20-year projection—we see a requirement of approximately 670 terawatt hours in 2020. That would compare with the National Energy Board's estimate of a little over 800 terawatt hours, so we're on the conservative side of the band of estimates.

Our estimate would envisage a requirement for approximately 40,000 megawatts of new construction in that timeframe, roughly 40% of our existing capacity. That is to replace old capital stock that will have reached the end of its useful life and to meet the growing demand that I've described. While 1.5% doesn't sound like a lot per year, compounded it adds up to a substantial amount of new requirement over a 20-year period. We believe the investment required will be in the order of \$150 billion.

As you're aware, because our capital cost allowance position hasn't changed in the two or three years that we've presented this to you, we are looking for changes to the current 8% for generation and 4% for transmission and distribution, to better reflect the real economic life of our assets. There's a need for investment and innovation to meet future demand. We all know the pressing environmental issues we're being asked to confront, as well as the need for greater efficiency in the production and distribution of our product. We see opportunities to invest in technologies like clean coal technologies, which will ensure our long-term ability to utilize a key resource in a number of regions of our country, and we need to invest in the transmission requirements to move the output from future hydro development in ever more northerly or remote sites to market.

Large generation projects can take between eight and twelve years, so the dollar we put in the ground tomorrow will not produce energy for another decade or so. We don't have time to waste in this regard.

• (1010)

In terms of CEA's agenda for how to ensure Canada's competitive electricity future, we have developed a five-point plan. As you'll see, the first point is the need to establish an investment climate to ensure future electricity supply; we also talk about smart and effective regulation, a theme that a number of other colleagues have mentioned; third, the need to ensure a sustainable future; and fourth, the need to invest in innovation and skills development. I would just add that we expect roughly 50% of our employees to retire over the next decade. It is not certain how we will replace them.

Our last point is that we need to build on the strengths of an integrated North American system. In that regard, we've done a lot of work in terms of assuring that the transmission inter-ties that link North America are run on a common set of reliability criteria so that the August 14, 2003, experience is not repeated.

Specifically, on page 7 we outline the capital cost allowance recommendations. I won't go into them. You're quite fully aware of them. I would note that with respect to class 43.1, we would like to see greater flexibility that would allow for additional renewable projects and co-generation projects to qualify. We think that would send an appropriate signal.

In conclusion, I would simply say that Canada needs to be the destination of choice for investment in electricity resources. We have a unique skill set that allows us to be "best of breed" in the development and deployment of electricity. Higher capital cost allowance rates are needed. Capital, as has been noted earlier, is extremely mobile. We operate within a North American context. We will compete with sites south of the border. Our study that we did with Ernst & Young and deposited with the Department of Finance clearly indicates that the historic cost input advantages that have underpinned electricity can no longer be taken for granted.

Thank you for your attention. We look forward to your questions.

• (1015)

[*Translation*]

**The Chair:** Thank you.

Next we have Mr. Larson from the Canadian Fertilizer Institute. Go ahead, sir.

[*English*]

**Mr. Roger Larson (President, Canadian Fertilizer Institute):** Thank you, Mr. Chairman.

My name is Roger Larson. I'm president of the Canadian Fertilizer Institute.

We're an industry association representing the mining, manufacturing, wholesale and retail distribution of nitrogen, phosphate, potash, and sulphur fertilizers.

The total economic contribution of our industry is about \$6 billion. We produce about 25 million metric tonnes of fertilizers and export around 18 million or 19 million tonnes, so about 75% of our production is exported. About half goes to the United States and about half goes to about 70 countries around the world.

Our industry competes successfully for markets around the world and increasingly is facing new challenges from foreign competitors. We believe there are a number of things the federal government can do to keep Canada's fertilizer industry competitive. In addition to the comments of my colleagues on Canada's general fiscal and debt priorities, I'd like to touch on two areas this morning—Kyoto and energy supply and general taxation.



The fertilizer industry supports the goal of greenhouse gas emission reductions, but we believe it must be done in a way that protects the international competitiveness of our industry. We appreciate that the government is taking a more positive approach to environmental sustainability and wants to work with industry. We believe that reduction targets for the industry must be reasonable, cost-effective, and achievable in practice.

Governments in Canada need to adopt policies that will enable our industry to make the investments necessary to continue reducing greenhouse gas emissions and to contribute to other environmental objectives. Natural gas is essential in the production of nitrogen fertilizer products, both as a raw material and as an energy source. As an industry we account for about 9% of Canada's total natural gas consumption.

Federal and provincial governments should recognize that, unlike oil, there currently is no global market equilibrating price for natural gas. An increase in gas costs, an isolated phenomenon in North America, impacts on Canada's fertilizer production costs and our ability to compete on the world market. The growing demand for natural gas in North America has been a trend for a number of years. This increase is primarily due to the rise in gas-fired electrical power generation.

Our industry also supports the vision and principles for a smart regulation strategy for Canada. An example of where smart regulation could be applied would be in supporting natural gas exploration and development. Canada needs a streamlined regulatory approval process to enable Canada to increase energy supplies, whether it's northern pipelines, LNG, coal gasification projects, and other new technologies.

Turning to tax, we need an internationally competitive tax regime, given our dependence on exports, the intense competition in global markets, and the recent recovery of the Canadian dollar. The fertilizer industry supports and appreciates the policy direction for resource taxation set out in Bill C-48 and passed in a recent Parliament. These measures will bring the corporate tax rate for potash into line with other industries and will restore a competitive tax regime once they are fully implemented.

I want to emphasize that our concern is that the five-year phase-in period is too long to end the double taxation on the potash industry. CFI also believes that the government should accelerate the phase-in of the corporate tax rate reduction to 21%. Even under the Bill C-48 formula, our tax disadvantage as compared to other sectors—as was pointed out by the mining association—has actually widened this year to 5%. The federal government needs to reassess this timetable and look at every opportunity to accelerate the reductions.

We agree with many other industries that the general income tax burden on corporations will still be too high. For example, our industry is currently undergoing an investment cycle where decisions will be made in the next few months or the next year on projects valued at hundreds of millions of dollars. Our member companies have announced evaluations on potash mines and expansion versus projects in other parts of the world.

● (1020)

As an industry in Saskatchewan, for example, we still face a marginal effective tax rate of over 60% combined federal and provincial taxes on potash.

In addition to reducing the tax rate to 17%, CFI believes the federal government could further improve the investment climate in Canada to meet new demands for capital. Depreciation and inventory deductions that are less generous than in many other countries create a burden for the fertilizer industry. This is particularly concerning at a time when the federal government is requiring major new investments to achieve greenhouse gas emission reduction targets under the Kyoto Protocol.

As mentioned, the federal government should also consider measures such as the accelerated elimination of capital taxes and accelerated capital cost allowances to ease the burden and help keep industry competitive. Industries such as the fertilizer industry have already acted to reduce emissions and should not be penalized further. Measures such as capital cost allowances and other credits related to Kyoto should recognize past investments or recent investments.

In conclusion, the steps we are asking the federal government to take to improve the competitiveness of the fertilizer industry include accelerating the phase-in of the resource tax measures in Bill C-48, especially full royalty deductibility; encouraging capital tax investments to reduce greenhouse gas emissions through accelerated capital cost allowances and other tax measures; engaging in innovative tax measures such as providing tax credits to Canadian farmers and other measures to help them in the adoption of new technology in managing crop nutrients; studying the royalty and tax systems and environmental policies affecting natural gas and other energy sources.

The fertilizer industry has seen many positive signs that federal economic policies are recognizing the importance of safeguarding and enhancing the competitiveness of our industry. We firmly believe that competitiveness can be compatible with environmental and other public policy priorities.

Thank you, Mr. Chairman.

**The Chair:** Thank you.

If we respect the time, members, we should be able to make it by 11 o'clock.

I will take the first four members for seven minutes and the next two at five minutes.

I will recognize Mr. Penson, Mr. Loubier, Monsieur Hubbard, Ms. Wasylycia-Leis, Mr. Harris, and Mr. Bell.

**Mr. Charlie Penson (Peace River, CPC):** Mr. Chairman, thank you.

I'd like to welcome the panel here today. It is very informative but it's a bit of *déjà vu*, I guess, for everybody around the table.

I've been involved as a member for more than eleven years in three capacities: critic for international trade, industry, and finance. There has been a reoccurring theme throughout the whole time I've been here from your sector and many other sectors, like the manufacturing sector, talking about the need to be competitive in the international world, considering that we export some 75% to 80% of what we produce, generally speaking.

It seems to me that a lot of your arguments have fallen on deaf ears. While we can continue to work on the international trade side, and we're having some success there, I take Mr. Lazar's point about the Byrd amendment and the forest sector. We need to continue to work there; there are some things we can do at home to make your industry more competitive. Largely, that has not happened to the degree that it needs to in order to ensure that we have the standard of living we all desire into the future.

Mr. Peeling, I noticed that one of the things you've talked about is the need to have some discipline on federal and provincial expenditures. I see that you're recommending—and by the way, Mr. Peeling, this is a theme we've heard fairly consistently through these pre-budget hearings—the need to control the federal amount of spending. It's been 7% or 8% a year. You're actually recommending that it be held down, basically, to the growth in GDP rates. Can you confirm that? And why are you advising us to reduce those rates of spending?

• (1025)

**Mr. Gordon Peeling:** The key issue is that if spending is to increase, or continue to increase, at a rate beyond the ability of the economy to grow, we will inevitably end up in deficit again. We have, I think, a wonderful opportunity at the current time to continue to pay down debt. After all, we've benefited over the last 20 years from those social expenditures that we wanted at the time, but it is not a debt we should be saddling our children with in the next generation. So we should be doing our best to get that down to a reasonable level, such that the interest payments that we make every year are much less than one in every five tax dollars we collect. As we address that, it will increase our flexibility in the future to address, indeed, the needed public policy issues Canadians put value in.

We do have a time right now, in terms of some success. We'd like to see that success continue. As well, tied with that is the need for a regular expenditure review. We're pleased the government is on that track at the current time. We think it should be a regular feature, because many programs have been around for many years. Do they meet the public test of need at the moment? Are they still serving useful purposes? We think those are always useful questions for government to ask. To the extent that moneys can be redirected, whether it's to health care, education, or cities, or whatever the need is at the current time, a good deal of that money can be redirected from existing programs that no longer meet the test.

**Mr. Charlie Penson:** I'm sorry to interrupt you, but we have limited time here.

I recognize the need for debt reduction, but isn't there also a need—and I think we've heard it in spades here this morning—to get our

tax system competitive because your industry, in general, needs to make reinvestments?

Now, the Canadian dollar, being high right now, may work to some advantage for reinvesting, but long-term investment really depends on the need for some profit in your industry. I'd like to maybe ask others on the panel if they want to jump in. Isn't this also a pressing need—that is, to bring tax levels down to not only be competitive with our major trading partner, but lower, in order to attract the kind of investment that you need in your industries?

**Mr. Gordon Peeling:** Maybe I'll start with a very quick comment and then let other colleagues make their views known.

It is a pressing need. We're in the most competitive global market ever for capital. Canada has to be attractive. It needs to follow through on the smart regulatory agenda; it needs to have a better rate than 21%. We cannot simply be as good as the United States and expect to attract capital to Canada; we need to be better. We believe that 21% rate will do that or the 17% will do that. It's also where you're going to create jobs, because that will flow through to small, medium, and large-sized enterprise, and that's where the jobs are going to be created. The fact that we can put more people to work will also allow them to meet their demands in education and health expenditures, etc. It does create a virtuous circle that in actual fact should make some of these programs more affordable in the long run.

**Mr. Charlie Penson:** I wonder whether Mr. Alvarez would have any comment on that.

**Mr. Pierre Alvarez:** I think it's fair to say I would agree with the general statement. One of the frustrations, as you know, is that some sectors are far behind other parts of the economy, in terms of the tax reduction. So 21% next year is 25% for the three of us at this table here today. Quite honestly, I'm having trouble looking past 21% at this point in time. I'd like to get there.

The second issue, though, is there are strategic tax questions, as well as the general corporate tax one, that need to be looked at. There are issues in Atlantic Canada regarding the high cost; there are issues about the corporate capital taxes across this country. There's a general point there, but I also think there are some very targeted ones we need to have a look at, because they do have a tremendous impact on specific locational challenges that we all face.

**Mr. Charlie Penson:** Mr. Alvarez, just to interrupt for a moment, the capital tax is not just exclusive to the federal government—

**Mr. Pierre Alvarez:** No, that's correct.

**Mr. Charlie Penson:** — there are provinces that haven't heard the message yet, as well.

**Mr. Pierre Alvarez:** Yes. I must say our biggest challenge in our sector is the province of Saskatchewan. It continues. Now, we're hopeful that, with its new "have" status, it will provide some policy flexibility that hasn't been available. That is a very sore point with us in the province of Saskatchewan.

**Mr. Charlie Penson:** I have a short question, Mr. Chair.

Mr. Shauf, you have introduced the idea of reintroducing the investment tax credit as a way of encouraging investment in the agriculture sector. Would you say that was highly successful in the agriculture industry in terms of their being able to update their equipment and revitalize their industry when it was available?

•(1030)

**Mr. Marvin Shauf:** As part of an overall strategy for building value in the industry, it provided a tool at that point, and should be considered as part of a basket of tools that could be considered for the future.

Strategy is key, I think, both in tax implications and in investment spending for the government. It should be considered as a strategy to build value in the economy.

**The Chair:** Thank you.

Monsieur Loubier.

[*Translation*]

**Mr. Yvan Loubier (Saint-Hyacinthe—Bagot, BQ):** Thank you, Mr. Chairman.

Mr. Shauf, I have a few questions for you about the status of Canada's agricultural industry. This sector is facing the worst revenue crisis in 30 years.

I worked for many years as Chief Economist for the UPA and this industry-wide crisis is unprecedented. Just think, for instance, of the impact of mad cow disease on the beef and cull cow industry, of US grain subsidies which have caused international prices to plummet and which have adversely affected producers, not to mention the problems of our aging farmers. In short, everything is happening at once.

You didn't mention it earlier, but a suggestion is currently making the rounds to impose either a floor price for cattle and cull cows or a federal slaughter tax. This tax would be imposed on all slaughterhouses across the country and the proceeds would go to setting up a fund to assist farmers.

Are you in favour of this idea, especially given the fact that the average price of a cull cow, for example, is now around \$100, whereas the same animal once fetched up to \$1,200 for producers. Retail prices, however, have remained static. The middle man, if you will, is the slaughterhouse which is reaping handsome profits from this crisis. In fact, Canadian slaughterhouses have doubled their profits in the past 18 months.

[*English*]

**Mr. Marvin Shauf:** We recognize the problems that are associated with the cull animals, and I did mention that in my comments. The cull animals have undermined, to some degree at

least, all of the programs that have been put in place by the Canadian government, which has responded to the crisis within the beef industry and other ruminants, at least to some degree.

The issue of the cull animals is one that has been a factor from the beginning of this problem, and it is one that will continue to be a problem even after there is live-animal access to other markets, because it is unlikely that we will achieve live-animal access to those markets for mature animals. We do need to have a pricing mechanism that gives producers some value for that animal, because there is value in it. But there are numbers of them that continue to... Because they're reproductive animals yet in many cases, this issue is one that is undermining the whole industry at this point, and will continue to do so. There does need to be a pricing mechanism to be able to get value to producers for those animals.

The other issue to talk about in the broader context of agriculture is that export agriculture in this country has had a humongous impact from the currency change. There is a huge amount of debt imbedded in this industry because it has been going through diversifying and changing activities to be able to respond to marketplace changes. There is a large amount of debt in this industry. It is very vulnerable to interest rate changes that may occur.

Add to the currency value what the damage has been on commodity values from that to some of the production issues that we've had and the BSE. So it's a very vulnerable industry at this point, and I want you to recognize that.

I sincerely think it's a good question, because there is an issue here that we really need to deal with and we need to deal with it strategically. The question you asked specifically about the cull animals and the others needs to be part of an overall strategy for Canadian agriculture to be able to ensure that producers are profitable enough to be able to—not individually, but the aggregate—renew the industry. We need to be able to build some value for Canadian agriculture. There are a lot of other people sitting at this table who are dependent, at least in part, on this industry.

•(1035)

[*Translation*]

**Mr. Yvan Loubier:** Mr. Shauf, would you not say that Canada is much more respectful of international trade agreements than most of its partners? Let me explain what I mean. When the first WTO accord was reached in 1994, Canada moved within the next few years to radically reform all of its agricultural policies. Furthermore, beginning in 1998, the federal government decided to reduce federal subsidies. At the time Mr. Goodale was responsible for this sector, the government did away with the grant of \$6.03 per hectolitre, on the grounds that this move was necessary in order to comply with international agreements.

However, since 1998, the Americans have increased their subsidies, without taking into account either NAFTA or the WTO Accord. The Europeans are doing exactly the same thing. Do you not think that federal policies are conspiring to destabilize this sector? We must comply with the terms of these agreements, provided the others partners do likewise. Right now, we're not competing on a level playing field since European producers are receiving three times as many subsidies as Canadian producers, and US farmers, twice as many subsidies as their Canadian counterparts. That constitutes unfair competition.

Would you agree with that analysis?

[English]

**Mr. Marvin Shauf:** I absolutely agree with that premise. I think there are two things. Canada has probably provided more leadership in reduction of support mechanisms than what we can afford to have as an industry. And secondly, I would say that in Canada we haven't tried as hard as we should have to understand the strategies of the investment that other countries are making. Part of it is about the money, but part of it is definitely about understanding the strategic investments that other countries are making. We haven't competed with them either with money or with strategy.

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

Mr. Hubbard, Ms. Wasylycia-Leis.

**Mr. Charles Hubbard (Miramichi, Lib.):** Thank you, Mr. Chair.

I often think that in terms of the time allocated this morning perhaps we're not spending enough time listening to this group of witnesses. I may have a rural bias, but I think basically the group that is here this morning is the group that is the foundation probably of our entire Canadian economy. Without our natural resources sectors working properly, most of our country is pretty well at a standstill.

We've heard, Mr. Chair, a number of points, one being of course the need to encourage investment, to promote investment in these industries. And I know we do have a lot of reports, but I think it's very important for us as a committee to look at methods that would encourage investment in these sectors.

In the mining industry, for example, back home we're concerned with Noranda, which seems to need investors, but apparently the Chinese are seen as the first source of investment. In the forest sector we see a good number of our forest industries being taken over by external investors that are bringing their investments here, whether they are, as in my own area, from Finland, or from other Scandinavian countries, or the United States.

Above all, I think we're hearing concerns about the future of these industries in terms of energy and how we might encourage the availability of energy at a competitive basis. We talk about energy that is being generated here in some areas at 9¢ and 10¢ a kilowatt.

First of all, I would like to address the wind energy sector in terms of how we could encourage... Now there are reports out that wind energy sometimes is not that efficient. I've read recent reports in newspapers where they talk about the optimum efficiency and so forth. In previous budgets we did encourage the development of wind energy, and you did mention how some of these programs don't relate both ways in terms of your possible investors. Would you have

any specific recommendation to make to this committee in terms of wind energy as a method by which Canadians should encourage investment?

• (1040)

**Mr. Glen Estill:** I think wind energy ties very directly into some of the discussions from the other players here.

We heard from the fertilizer people that the impact of high natural gas costs is an issue. If you generate electricity from a source other than natural gas, you have an impact on natural gas prices, which allows the fertilizer industry to continue. That's certainly one of the drivers for the wind business, particularly in the U.S., because of course it's a North American gas market.

We've also heard some discussion about the cost of Kyoto. Well, if you generate your electricity from wind, you don't have carbon dioxide emissions, and that's a pretty powerful thing.

As per your comment on efficiency, I think you're probably talking about capacity factor, which is in no way a measure of efficiency. The capacity factor of a wind turbine in a good wind site in Canada might be between 30% and 35%, which means you will get 35% of the rated capacity of the wind turbine, on average. It's not really a problem, it's just a matter of equipment selection and what the wind resource is in an area. We capture about 85% of the available energy in wind as it passes through a wind turbine's blade, so it's a pretty significant efficiency.

As far as what can be done is concerned, I'd say the key issue is we need to make sure the wind power production incentive is expanded, as was mentioned in the budget. We have had federal support in the past. It has simply not been large enough to capture the economic development opportunity and the carbon dioxide reduction opportunity and establish a substantial business.

The second thing is that we operate at cross-purposes, because if you use the Canadian renewable conservation expense, which is essentially a flow-through, much like the oil and gas sectors use—it's a way to raise capital—then you're excluded from applying for the wind power production incentive.

So we need those two incentives to work in harmony with each other.

**Mr. Charles Hubbard:** In the forest sector, in terms of capital cost allowance and special incentives to encourage investment, are there specific recommendations you would make that would enable some of our rural areas to continue? A lot of rural areas right now have older equipment and they have mills that are not that technologically advanced or don't have that high a productivity. Should we encourage special write-offs for investment in certain rural and economically depressed areas in this country in order to encourage your industry?

**Mr. Avrim Lazar:** Let me start by putting it in perspective.

The U.S. industry did a study of taxation rates of forest industries around the world. They were certain they were the most heavily taxed. They called me and said, Avrim, you take it, because you're the most heavily taxed. We are the most heavily taxed forest industry in the world. And this is not a study we did; it's a study that was done south of the border.

So anything that reduces the taxes will of course increase investment. When you're trying to attract investment, there are two things that matter. One is the actual cost structure—taxes, cost of regulation, cost of energy, cost of transportation. The other is reputation. Does the country have a reputation for having a good business climate? We have to act on both sides. We have to show investors that Canada is a place that's friendly to investment.

On your specific question about what has to be done on the tax side, well, the first thing we could do—which the government has already said it's going to do—is remove the large-corporation tax. I don't know why we're doing it over a long period of time. Competition is now. Let's eliminate it now. We have the surplus. We need the investment now. Let's eliminate the large-corporation tax now.

On write-offs for capital renewal, anything that would give us an accelerated write-off on new equipment would translate into keeping the mills open.

**Mr. Charles Hubbard:** Mr. Chair, in the agricultural sector, one of the recent studies indicates that there's a major problem in seeing that future generations are able to buy into the business. In fact, the farm groups in this country... if you look at the average age of the present farming community, it's well beyond middle age.

Mr. Shauf, would you have certain recommendations to make? I know you did mention the generational turnover in terms of capital gains tax, which is at present around \$500,000. But I know that your group seems to need a higher rate.

Do you have recommendations on how we might encourage future farmers to become involved in the industry?

•(1045)

**Mr. Marvin Shauf:** Yes. What we have talked about in terms of competitiveness and strategic plans for the future.

We tend to look at things in isolation and in silos. It seems to me that my farm adds value to his fertilizer. If we look at that and build incentives for us to be more strategic in terms of how we function within Canada, we can improve the value of everybody's business along the way and provide more jobs.

When it comes to taxation issues, whether it's a rollover tax or an incentive for young producers to become involved in the industry, what's really going to attract people and investment into any industry is to be compensated appropriately for spending their time doing that. That's why I think we strategically need to focus on how we can make it profitable for the producer, so they can pay the taxes, and how we can build the value in the economy so we can compete globally, from everybody's perspective.

**The Chair:** Thank you.

Ms. Wasylycia-Leis, then Mr. Harris, and then Mr. Bell.

**Ms. Judy Wasylycia-Leis (Winnipeg North, NDP):** Thank you, Mr. Chairperson.

Let me just raise the issue that Mr. Hubbard started to raise on wind as an energy source and ask questions of the electrical association, the wind association, and the petroleum association.

I think everybody is in agreement that we have to be looking seriously at achieving our Kyoto targets. I know there are concerns about not destroying competitiveness in the industry at the same time, but given the critical nature around us, would you not agree that a significant investment into an alternative energy source like wind production would be a wise investment that would produce dividends down the road if we're looking at this particular budget year?

Go ahead. Why don't you start, and then maybe the others will want to debate you.

**Mr. Glen Estill:** Okay. First of all, yes, I would agree with you.

I guess the other thing that I think shouldn't be underestimated is the potential economic development aspect of developing a real, sizeable, world-class Canadian wind energy industry. If you look worldwide, in Germany the second-largest customer for steel is the wind business. In Denmark the second-largest employer after the fishing industry is the wind industry. So in countries where they have taken a very serious, concerted effort to develop the industry, the jobs follow. Although we're very small right now, I think we can make a significant contribution.

Certainly, in respect of the \$150 billion worth of investment required in the electricity sector, I think we'd be crazy to make those investments in technologies we know are not going to be viable in a post-Kyoto world.

**Mr. Hans Konow:** From an overall electricity point of view, I think you raised the issue of how we respond to Kyoto. We're fully supportive of wind as an important strategic investment, but you have to look at it in the context of how large a piece of our mix wind represents. It's somewhere, I guess, in the range of 1% or less. But we see a potential to grow that, certainly, to something like 5% or perhaps even more than that.

The point is, however, that already 72% to 73% of what we produce creates no carbon emissions whatsoever. Our hydro base is around 60% of what we produce. Our nuclear is about 12%. So that leaves the 25% that's coal and perhaps 4% that's natural gas as the emissions-producing component. It's probably the least carbon-intensive mix in the developed world. It's a very enviable position to be in as a base. However, it also means there's very little to work with in terms of improving that carbon performance.

I think we have to be focused on where we go for our next increments of generation. As I mentioned earlier, we see a potential for more hydro development, but it will take 10 or 12 years; it's not something that will be available to us overnight. We can put wind up quickly; therefore, it makes sense to invest in wind.

The long-term future will be using all of the resources we have, investing in technology so we use our western coal resource, for instance, in a way that's compatible with our environmental objectives. The clean coal technology that's being developed includes the capture and sequestration of carbon dioxide, which would make it Kyoto-compliant as well. Those are technologies that will be available to us in the longer term. So it will take time.

I think that's the perspective you have to keep in mind when we look at a solution.

• (1050)

**Mr. Avrim Lazar:** Let me, if I may, jump in here and mention the word "biomass". In Canada we're blessed with an abundance of biomass, and it is a Kyoto-neutral fuel. You can create energy with it with zero contribution to your greenhouse gases, according to Kyoto. We have it all throughout rural areas. Most of it is wasted if it's not used for energy generation.

We are moving toward mills that have zero waste, and part of this is that we take the bark, the sawdust, and anything that could be waste, and we turn it into 100% clean energy. To do that, though, we need the government to recognize biomass as an alternative fuel, just like wind energy. It's just as clean as wind energy and in the interior of the country it's far more abundant. We need rules for cogeneration that will allow us to fully exploit it. We have an incredible wealth of energy that is 100% renewable, 100% clean, and 100% Kyoto-neutral, and what we need is a policy framework that will allow us to exploit it.

**Ms. Judy Wasylycia-Leis:** Did you want to add anything different? If not, I have another question.

**Mr. Roger Larson:** I'll just jump in for a second here.

I'm not an expert on the economics of wind energy, so I won't comment directly, but what I want to emphasize is the importance of integrating policy development. The government needs to ensure that policy related to the implementation of the Kyoto Protocol doesn't place an unsustainable demand on natural gas and other energy sources that cannot be met by current production capacity.

The government also needs to look at the fact that if we want to place more emphasis on certain energy supplies, whether wind or natural gas, then as a country we need to ask where we are going to get that increased supply, recognizing that nobody is proposing to constrain markets. We have a free trade environment in energy, and that's very important for us in order to maintain investment and increase investment in that sector, so how do we incentivize increased investment in that sector so we can increase supply and meet our needs?

Thanks.

**Ms. Judy Wasylycia-Leis:** That leads me to my next area of questioning. I agree we need an integrated approach, and we also need a balanced approach in terms of when we involve government in strategic investments and when we don't. My question—if I had

time it would be to all of you, but I would start with Mr. Peeling—is around the issue of the right balance for us to pursue, given the incredible surplus numbers we're dealing with. I know in your paper you take a very strong position in terms of sticking with the debt-to-GDP ratio reduction and sticking with tax cuts, and you make a significant number of suggestions in that regard.

I want to ask you this, though. If in fact you could achieve the 25% debt-to-GDP ratio in 11 years instead of 10 years by taking a good chunk of this surplus money we now have and investing it strategically—whether it be in infrastructure improvements, whether it be in a national child care program, or whether it be in post-secondary education—knowing we could still reach our target a year later than the 10-year target but could achieve some other benefits that help your industry, would you accept that as an alternative?

**The Chair:** Just quickly answer, please.

**Mr. Gordon Peeling:** Mr. Chair, we obviously prefer having a target because we think it does focus the mind on the choices we all have to make in terms of public policy priorities.

**Ms. Judy Wasylycia-Leis:** But my question is, what if we could reach the same goal in 11 years and not 10 years and this was based on good economics?

**Mr. Gordon Peeling:** Through a Department of Finance forecast on deficits?

**Ms. Judy Wasylycia-Leis:** If that was possible, would you support it?

Would you recognize independent—

• (1055)

**Mr. Gordon Peeling:** I'm not sure where you're going to get a better—

**Ms. Judy Wasylycia-Leis:** — economists who predicted that if you actually took the surplus and invested it strategically to grow the economy, you'd bring down your debt-to-GDP ratio at almost the same rate? And similarly, one could ask—

**Mr. Gordon Peeling:** Yes, that's simply allowing the economy to grow. That's not solving the debt problem at all. That's still leaving the next generation to be saddled with that \$500 billion. So you can't —

**Ms. Judy Wasylycia-Leis:** No, you missed the point. It's achieving the same target.

**The Chair:** Thank you.

Mr. Harris, then Mr. Bell.

**Mr. Richard Harris (Cariboo—Prince George, CPC):** Thank you very much, Mr. Chairman.

Gentlemen, I want to thank you for your presentations. While we get overwhelmed with submissions during these pre-budget consultations, I want to assure you, and I think I can speak on behalf of my colleagues, that we do take the time to read them. After glancing through yours this morning, I'll be interested to get some downtime so that I can have a further look at it.

What I'm hearing from you again—and I think this is my sixth year in pre-budget consultations—is that you're not here before us looking for government subsidies or handouts; you're looking for a government to take the responsibility to create a healthy business climate and environment so that you can get them out of your pockets, out of your face, and let you do business.

This would come from a few well-known ways, such as deregulation, which would be a help, I'm sure, to wind energy, allowing more flexibility to get your energy into the grids when it's up and running. I know that's a provincial thing, primarily, but the feds can help out with that, I'm sure. As well, in terms of eliminating punitive and discriminatory taxation in certain industries, I know you've been fighting for that for some time, and for a lower tax regime overall. We certainly join you in that.

Every one of your industries I think touches my riding in central B.C., but as we probably have the largest softwood lumber producing area in all of Canada, perhaps in the world, I want to address a question to Mr. Lazar. I have a shortage of time here.

The Byrd amendment that was introduced in America a short time ago now appears to have been regenerated by the Baucus effort. I want to get you on record, in advance of President Bush coming to Canada, on the importance of our Prime Minister speaking to him about the softwood industry—this would be in addition to the beef industry and other trade problems we have, but particularly softwood—and the importance of the president publicly abolishing that Byrd amendment and the follow-up Baucus effort, giving a clear indication to our forest industry that we're going to be open for business again, without having to forfeit close to \$2 billion, I think, at this time, directly to their competitors in the U.S.

I think that would give a lot of encouragement to our industry and to our workers in the forest industry.

**Mr. Avrim Lazar:** Thank you.

Let me put it on the record that the softwood dispute is the largest trade dispute in the world. It's affecting tens of thousands of jobs in Canada. It's affecting the direction of investment. It's affecting the structure of rural life in Canada. It doesn't affect just the softwood industry, it also affects the pulp and paper industry, because the softwood industry provides the raw materials for pulp and paper.

The application of the Byrd amendment is contrary to international trade law. It's been found to be contrary to international trade law by international panels. The softwood tariff is contrary to international trade law. It's been found repeatedly to be contrary to international trade law by independent panels.

The U.S. government has done nothing—nothing—to comply with the international treaties that they have signed and that they are trying to force on other countries like China, which they say is the essence of free trade. It is time for our government, for our Prime Minister, for our trade minister, to make our determination to have the U.S. live up to the treaties they've signed very, very clear.

• (1100)

**Mr. Richard Harris:** Mr. Lazar, I appreciate that. I'm sure you agree with me that this should be, if not a number one priority, right up there in the top two that our Prime Minister will discuss with the President of the United States when he visits Canada.

**Mr. Avrim Lazar:** Obviously, we think it should be the top priority, but we know that beef is very important to Canadian rural areas as well. But discuss is one thing; I think when you're dealing with an economic interest who has behaved in such a self-interested and disrespectful way, it's determination that has to be shown. The essence of international trade law is that if you don't comply, you get punished. The punishment comes through retaliation. As long as the U.S. can assume that they can take our weakness for granted, they will assume that they can ignore the trade law.

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

Could I ask the witnesses to hang on for five more minutes? I have one more member.

Mr. Bell.

**Mr. Don Bell (North Vancouver, Lib.):** Thank you.

I have a couple of questions. The first is for Mr. Estill, on wind power.

As I understand it, with regard to the wind power production incentive and the Canadian renewable conservation expense, the WPPI and the CRCE, you're saying that currently under the greenhouse gas emissions proposal you can't benefit from both of those, because one is designed to provide a revenue stream and the other is for wind farm construction.

They're really two separate things, so why wouldn't they be applicable jointly?

**Mr. Glen Estill:** That's a good question. There are actually two current incentives. There's the Canadian renewable conservation expense, which is a method of building roughly 20% of your wind farm and attracting investment by flowing through the capital cost of the test turbines to the investor. It's a way of raising capital. It's worked very well in the oil and gas sector, and it's well known in Canada as a method of financing. Some public offerings are going on now. It has started to become very significant and important to the wind industry.

If you use that method of raising capital, those turbines are excluded from getting the wind power production incentive. One is a method of raising capital, and the wind power production incentive is a way of lowering the cost to level the playing field with existing entrenched generation sources. So we have two incentives that are not allowed to work together today.

The third incentive that is possible is the potential for carbon trading. Under the current proposals, the federal government has proposed that if you apply for and get the wind power production incentive, you will not keep your carbon credits. Essentially, the federal government will obtain them.

Studies by Natural Resources Canada have said that the wind power production incentive doesn't close the full gap in cost between the current wind industry, with its state of development, and the cost of conventional generation. They've admitted that the wind power production incentive on its own is not enough. They need provincial participation. We're getting that provincial participation now, and now the federal government is saying, through their greenhouse gas emissions trading, that they want the greenhouse gas credits if they end up being allocated in the system.

So the design of the greenhouse gas emissions trading system is a big question mark for all industries here. Right now it does not appear that the plans are to have it benefit wind in a significant way.

**Mr. Don Bell:** Okay.

In your comments, Mr. Peeling, you said that there were three things—debt reduction and expenditure management, a more competitive corporate tax system, and measures to... But I couldn't keep up with you. I've looked in your brief, and it's not spelled out nice and neat like you had it.

**Mr. Gordon Peeling:** The third would be measures to encourage exploration investment in Canada.

The three key points there were to make the super or enhanced flow-through share program permanent.

**Mr. Don Bell:** I'll go back to your brief for that.

As well, you indicated that aboriginal consultation as a result of some of the recent court decisions is not an allowable expense.

**Mr. Gordon Peeling:** It is not an expense under the definition, in the tax act, of Canadian exploration expense. We have asked in past submissions, as we ask again in this submission, that we engage in consultations with the Department of Finance and Natural Resources Canada to update that 50-year-old definition of Canadian exploration expense and modernize it, to recognize that there are new regulatory requirements that we face as an industry.

**Mr. Don Bell:** I don't know if I saw that in the brief. If it's not in there, then anything more you could provide us with would be useful.

Mr. Shauf, I got some of your comments. One of them was that the CAIS deposit should be removed, and you said sooner rather than later. Your brief says it would save \$14 million in administrative costs.

Who pays that \$14 million? I think your brief said it would "save Canadians" \$14 million. Is it administrative costs in the federal government or administrative costs in the agriculture or beef industry? Where is it?

• (1105)

**Mr. Marvin Shauf:** That \$14 million is in the program administration within the department. Subsequent to that, though, or in addition to that, are all of the other administration costs paid by producers that aren't quantified related to adjustments of that deposit.

A number of issues around that deposit are just wrong.

**Mr. Don Bell:** Okay.

To Hans Konow, you talked about a five-point plan, and in your brief I saw four points. I'm referring to pages 4 and 5 of your brief. You have recommendations... or that's just the CCRA.

Are the five points spelled out somewhere, one to five, or am I missing them?

**Mr. Hans Konow:** I would refer you to page 6, "An Agenda for Canada's Electricity Sector", and the five bullets.

**Mr. Don Bell:** I'm missing that. It's page 6?

**Mr. Hans Konow:** It's on the handout that was provided. I'm sorry, it's not in the pre-budget submission, but in the handout provided to members.

**Mr. Don Bell:** I'll see about getting a copy of that. That answers my question. I can find that. Thank you.

The other question was to Mr. Larson of the Canadian Fertilizer Institute. You said in your brief with regard to smart regulations, "While we agree with many of the recommendations... the federal governments needs to provide a plan to implement Smart Regulation." Does this simply mean get on with it? You agree with the plan and just get on with it?

**Mr. Roger Larson:** Yes. The plan is great, but making sure it's implemented is the next challenge or hurdle. I think there are some important regulatory matters before the government right now that could serve as test cases. We refer specifically to two things, such as the application for the MacKenzie Valley Pipeline. I could also give you examples within our own industry. We have a trade issue with the U.S. right now, an export issue, where we're asking that smart regulation principles be applied.

**Mr. Don Bell:** Thank you.

I'd like to thank everyone. I appreciate this, as the base sector is very important. I find these presentations fascinating. Thank you.

**The Chair:** Thank you, everyone.

I have a quick question for Mr. Peeling. I understand that you support the idea of a national securities regulator. Is that something talked about among your members?

**Mr. Gordon Peeling:** Yes, it is, and we do support it. Canada's got a very fractured system that is not in the best interests of the public, and that extracts a cost in our ability to attract and raise capital in an efficient manner in this country. At the moment, we're duking it out with Bosnia-Herzegovina as the most unstructured capital market in the world. I don't think that should be the Canadian objective.

**The Chair:** Thank you.

I have a quick question for Mr. Lazar. You're penalizing us for having a good economy because our dollar has gone up as a result of that, but it seems to be a problem in your industry. How do we balance that?



**Mr. Avrim Lazar:** Two things. One is that the dollar has gone up 30% in a couple of years. Economies haven't changed that quickly, so the Bank of Canada has to act on its responsibilities and moderate the ups and downs to better reflect how the economies are changing.

The second thing is that government has managed to avoid changing a lot of inefficiencies in our business climate, because we could afford them when we had a low dollar. Now that the dollar is higher, we have to act with much more speed on things like smart regulations, tax reform, and consolidation. All of the things we were able to put off because they're politically difficult become a matter of life and death if we want to keep the jobs in those mills.

**The Chair:** Thank you. Good point.

I just want to thank all the witnesses. We started a little bit later, so I want to thank you for your indulgence in holding up. Have a good day.

The meeting is suspended.

• (1110) \_\_\_\_\_ (Pause) \_\_\_\_\_

• (1120)

**The Chair:** Perhaps we can get started. I apologize for being slightly late.

I may ask that we go overtime, because we have nine groups, which is quite a lot.

We're going to give you an opportunity to make an opening statement or remarks, but I am going to try to keep you to five minutes. I don't like to interrupt, because if you're trying to make your point, it's important to you, but please try to keep it within the five minutes. I'll try to signal you, but I would really appreciate it if you could respect that.

[Translation]

First up is the Social Sciences and Humanities Research Council of Canada.

Mr. Renaud.

**Mr. Marc Renaud (President, Social Sciences and Humanities Research Council of Canada):** Good day, everyone.

First of all, we want to thank the committee for allowing us a few minutes of its time. Thank you as well for the strong statement in your report last year in support of the valuable contributions made by the social sciences and the humanities. We were greatly encouraged by your report and we hope that your committee will continue the work undertaken by its predecessor last year.

Since I have only a few minutes, as you've just indicated, Mr. Chairman, I will speak in English. I apologize to the francophones, but it's the only way to ensure that everyone understands me.

[English]

To make a very long story short, the organization I chair, which is called the Social Sciences and Humanities Research Council, is currently being submitted to two very distinct sets of forces that are quite unique in our 26-year history. These pressures have never existed so strongly in the past.

The first is a push force on the part of universities. There's an incredible increase in demand for social sciences and humanities funds for research. This is attributable to the fact that there are all kinds of new R's in university. Younger colleagues want to do subsidized research. We've had a 15% increase in demand each year over the last three years, including this year. We had 400 first-time applicants in 1999. This year we've had 1,080 first-time applicants. So we're faced with a huge increase in demand on the part of university colleagues.

Simultaneously, we're seeing the small and medium-sized universities asking for programs to help them be part of the knowledge society and knowledge economy. They want to play a role to make Canada the most advanced knowledge society in the world. They're asking for money for their new researchers, and they're asking for money to support undergraduate students and get them interested in research. So SSHRC is confronted, first of all, by this massive change in the community.

The second set of forces we're confronted with are more pull forces. There's an increased demand for social sciences and humanities knowledge. What we feel at SSHRC is pressure for us as an organization to move from being a very good granting council to becoming kind of a knowledge council, responsible not only for the generation of knowledge, but also for the impact, for the influence of that knowledge.

This means a few very concrete things. It means first of all that we have to figure out a way to better connect among ourselves, the researchers, in this vast land that is Canada. The social sciences and humanities are probably 15 years behind the natural sciences in networking and connecting to one another, and this has to change. It's the only way to have added value in the areas where we're strong.

There's also a need for us to better connect to the outside world. Canada's presence internationally could be much greater if people in the social sciences and humanities were much more present than they are now. We have to figure out tools by which the knowledge we generate in our research gets out. We have to figure out bridges to evidence-based decision-making in government. We have to figure out bridges toward the media. So there are all kinds of things that SSHRC is pressured to do, and we call this SSHRC's transformation.

Because of those two sets of pressures—the push forces of academia, and the pull forces to get our knowledge to be more useful and have more impact—SSHRC has the intention of presenting a memorandum to cabinet to ask for at least a doubling of its budget over the next five years. A third of this increase in budget will go to coping with the push forces, and two-thirds to coping with the pull forces.

Some of you may wonder why the heck Canada needs a greater investment in social sciences and humanities. I don't think that argument has to be made in this committee, because I realize that eight of the twelve members of the committee have degrees in social sciences and humanities. But in case some of you have doubts about why Canada needs so much of this kind of knowledge, please go to our website and look at the results of our last cluster competition. You can get an idea of this on page 4 of the document that has been distributed to you.

We launched a program a few months ago, saying to Canadian researchers that we have to get better organized, so let's figure out the areas where Canada has an incredible amount of strength and where we could cluster better. We had 135 applications—unbelievable. We chose 30. Look at what those 30 are. They cover the landscape of the questions that people in government and Canadians are asking themselves—how to get business more competitive; regions, cities, communities—how to go about that; governance and public policy infrastructure; citizenship, etc.

I'm getting a sign to end, and I will. But if you're interested in trying to understand why these disciplines are so important, please go and look at our website that talks about this, or read the document that provides all kinds of little examples.

• (1125)

Ladies and gentlemen, at SSHRC we have the feeling that we're at a unique point in history where knowledge about our institutions, our values, and our culture is as important to develop as knowledge about products and technology. We have the feeling it's now clear that the social sciences and humanities are as important for the future of this country as the natural sciences, and in that context we really need your help.

Thank you.

**The Chair:** Thank you.

Am I one of the people with a humanities degree? Does a bachelor of commerce include humanities and social sciences?

**Mr. Marc Renaud:** We cover the waterfront of the issues. All the business schools, education, law—everything that's not natural science and medicine.

**The Chair:** Okay, thank you.

The next group I have is the Association des Universités et Collèges du Canada.

**Dr. Peter MacKinnon (Chair, Board of Directors, Association of Universities and Colleges of Canada):** Thank you for inviting AUCC to participate in this year's pre-budget hearings. Our starting point is straightforward: Investing in post-secondary education and in university research is a necessary condition for the creation of wealth and social development for Canadians. As the Prime Minister remarked in Vancouver earlier this month, in today's world our quality of life and the economic strength of the country depend upon knowledge and innovation.

Last week, when Minister of Finance Ralph Goodale met with your committee, he spoke of building on the government's innovation agenda for a new national dream aimed at making our economy more productive and competitive—the kind of 21st century economy that generates the wealth this nation will need, and the kind of well-paying jobs our people deserve.

The federal government has made major investments in recent years to create the university research capacity that Canada must have to compete in a knowledge-intensive world. The Prime Minister has noted that as a country we have begun to reverse the brain drain of years past, and are receiving international recognition for this achievement. We now have many of the tools we need to attract and retain top researchers, and to participate as a full player in

international research collaborations. It is important that we maintain and build on that momentum.

[*Translation*]

**Ms. Claire Morris (President and CEO, Association of Universities and Colleges of Canada):** Some may ask why we need to do more about university research, since it appears that the government has already invested so much in years past. We recognize that the investments to date have certainly contributed to a reputation for Canada of excellence in research. But at the same time, any suggestion that the job is now done will signal to our competitors that in fact Canadians are not serious about research, that we're not serious about being competitive in the world of the 21st century, and that we're not serious about building a “brain gain” rather than a “brain drain”.

Canadians recognize that university research is a long-term investment, the results of which are difficult to predict. But history clearly shows that public investments in research do benefit the health, economic well-being and quality of life of Canadians. Having made a good start down that road, it simply doesn't make sense to turn off the engine before we reach our destination.

There has been a great deal of interest in the commercialization of university research, and Canadian universities can be proud of their achievement to date. But commercialization is only one of the ways through which the knowledge created on university campuses is transferred to Canadian society. The most important of these is through the graduates whose education enables them to become productive members of the workforce. Again, the private sector agrees. Mike Lazaridis, the man who gave us the famous Blackberry, likes to say that commercialization is not just about patents but about educating the students who then go to work in the private sector.

We have presented the committee with a graph showing the importance of this knowledge transfer.

I know you will be hearing from a number of organizations later today about post-secondary issues, but I would like to take a moment to focus on students. In the last three years, enrolment at Canadian universities has grown by 130,000 students. Governments must work together to ensure that our institutions have the capacity to meet the growing demand for quality education opportunities at both the undergraduate and the graduate levels. Meeting this challenge will require cooperation between the federal and provincial governments, especially with respect to federal transfers for post-secondary education.

• (1130)

[*English*]

There are immediate actions that the federal government can take to alleviate some of the pressure on university operating budgets. In particular, funding the full indirect costs of federally funded research will eliminate the need to divert moneys from operating budgets.

In terms of quality, we need to attract more faculty members to teach our students, and funding for graduate education is one way to help produce the next generation of teachers and researchers.

We must also enhance the quality of higher education by ensuring there is a strong international dimension to the university experience. AUCC is contributing to the international policy review now under way to ensure that it reflects the important contributions that universities, through their students, faculty, and researchers, can make to Canada's place in the world.

Let me close by outlining the immediate challenge, from our perspective. We look to the government to respect its commitment to build on its investments to date in research. In particular, the federal government must work toward a target of funding indirect costs at a minimum rate of 40%, rather than the current rate of 26%. It must also ensure that there continues to be growth in funding for direct costs.

Thank you once again for providing us with the opportunity to share our thoughts with you this morning. We'd be pleased to respond to your questions.

Thank you, Mr. Chairman.

**The Chair:** Thank you.

Next is the Canadian Foundation for Innovation, Mr. Phillipson.

**Dr. Eliot A. Phillipson (President and CEO, Canada Foundation for Innovation):** Thank you, Mr. Chair.

I want to begin by thanking the finance committee for this opportunity. Today marks the fourteenth appearance by CFI before a parliamentary committee since it was created in 1997, but it represents my first opportunity as president and CEO to address parliamentarians in this forum.

Since 1997 the Government of Canada has put into place the necessary conditions to build a strong research and innovation enterprise in Canada, one that is competitive by international standards of excellence. This priority aligns well with the national interests to succeed as a country in the knowledge-based economy of the 21st century.

The government's investment in research has transformed the innovation landscape in Canada by enhancing the capacity of research institutions to undertake leading-edge research and innovation that will bring benefits to Canadians. As a result, throughout Canada's research community there is an unprecedented level of enthusiasm and a sense of optimism for the future, particularly and importantly among young researchers. Internationally, there is a growing recognition, indeed admiration, that when it comes to science, Canada matters.

As part of its investment in research, the Government of Canada created the Canada Foundation for Innovation in 1997. The CFI's mandate is to fund research infrastructure in Canadian universities, colleges, research hospitals, and non-profit research institutions, thereby strengthening their ability to carry out world-class research and technology development that will benefit Canadians.

Seven years into its mandate, CFI has invested \$2.7 billion in over 3,600 research infrastructure projects at 118 institutions in 59 municipalities across the country. These investments are made on the basis of a rigorous assessment of merit, using international standards, and on the capacity of the program to enhance the training of future researchers to bring economic and social benefits to Canadians.

When the leverage from partners is taken into account, the initial CFI investment of \$2.7 billion has now generated over \$7 billion in infrastructure investments.

The impact of CFI's investments has been profound. Because CFI funds are awarded to institutions based on their strategic priorities, the advent of CFI has been a catalyst in strategic planning by institutions and has enhanced their differentiation and specialization. A stable financial environment enables medium- and long-term planning that promotes well-thought-out investments that will generate benefits in areas of strategic importance to Canada.

CFI's investments in state-of-the-art infrastructure have also contributed very significantly to the development of world-class expertise in communities across the country, by enhancing the competitive position of Canadian institutions in recruiting researchers from abroad and in retaining the best and brightest of their faculty members. This success has been achieved in the setting of intense international competition. Last year alone, CFI assisted in the recruitment of over 3,000 researchers to Canadian universities, colleges, and research hospitals, including 1,200 from leading institutions in other countries. These researchers are in turn attracting outstanding graduate students and trainees who will be the engines driving Canada's innovation agenda tomorrow.

Because of its status as a foundation entrusted with public money, CFI attaches paramount importance to operating in an economical, effective, and transparent manner, and to communicating its activities and results to a wide audience. As required by the act that established CFI, our annual report is tabled in Parliament each year through the Minister of Industry, and we are regularly called to appear before this committee and other parliamentary committees. The annual report includes information not only on financial performance, but also on CFI activities, evaluations, results, and corporate plans.

Until now, CFI has pursued a policy designed to empower institutions to enhance infrastructure developments in their areas of priority. There is a continuing need for such an approach, but as we go forward the need for new strategies is emerging, which we are currently addressing.

●(1135)

In summary, as Canada, like all industrialized countries, positions itself to be competitive in the innovation-based economy of the 21st century, it is critically important that commitment to the research agenda of the nation be maintained. This agenda will ensure continuing generation of the knowledge that is essential for the innovation pipeline and the ongoing training of the highly qualified personnel who will transform the new knowledge into products and services that will benefit Canadians.

Much like education and health care, investing in knowledge creation is not a one-time-only event, but rather an ongoing commitment to the future prosperity of the country. Canada has made an impressive investment in its research enterprise during the past few years and we owe it to future generations to maintain the commitment.

This concludes my formal remarks. My thanks to the chair and members.

[Translation]

**The Chair:** Thank you.

Next, from the Canadian Institutes of Health Research, we have Mr. Bernstein.

[English]

**Dr. Alan Bernstein (President, Canadian Institutes of Health Research):** Thank you very much.

As you all know, Canadians care probably the most about their health, the health of their loved ones, and the health of their health care system. It was with this in mind that Parliament created CIHR about five years ago.

[Translation]

CIHR has been given an expanded mandate to develop a strategic approach to health and our health care system, an approach focussed on resolving problems and based on solid excellence in research.

[English]

After just four short years, CIHR is bringing together researchers, patients, the public, policy-makers, provincial ministries of health, and industry to focus on important problems that matter to Canadians. As a result, remarkable scientific progress has been made. However, we still have a long way to go. We still don't have cures for most of the common, serious, and complex diseases that affect western society, diseases such as heart disease, diabetes, cancer, mental illness, drug addiction, arthritis, and Alzheimer's disease. Key questions remain unanswered about our health care system, how to deal with waiting times, pharmacare, rural and northern health delivery of health services, and I could go on.

Now that CIHR is four and a half years old, I think we're now starting to reap some of the benefits of the investments that have been made over the past four years. I'd like to give you just a few short examples.

First, Dr. Brett Finlay, a CIHR distinguished investigator, and Michael Smith, prizewinner from the University of British Columbia, have developed a vaccine that prevents the bacterium *Escherichia coli*, E. coli, from entering the food supply. That's the bug that killed people in Walkerton. This vaccine, which is now being marketed worldwide by a biotech company from Saskatchewan, will reduce the toll of E. coli, which each year makes 50,000 North Americans ill, kills 500, and costs our economy an estimated \$5 billion in North America.

Second, Dr. Salim Yusuf, from McMaster University, in an international study called the INTER-HEART study, spanning 52 countries, has investigated 30,000 individuals with heart attacks around the world and found the nine major risk factors for that disease. His research is providing the evidence needed to build national and international prevention and control programs.

Third, CIHR is supporting Dr. Denis Richard at the Université Laval, who is leading a multi-disciplinary team of 25 researchers to examine many aspects of obesity. His team is focusing on the prevention of obesity in children, the major risk factor for heart disease, stroke, type two diabetes, fatty liver, and gallbladder disease.

Fourth, Dr. Colleen Varcoe is leading a \$1.3-million team of nurses, economists, and sociologists at the University of Victoria, focusing on the health consequences of leaving a violent and abusive partner.

An integral part of CIHR's mandate is to move real research into the real world, to strengthen our health care system, and to build Canada's knowledge-based economy. Let me give you two examples.

Dr. Patricia Martens, of the University of Manitoba, has a team called the "Need to Know Team", which is examining the delivery of services to the mentally ill in Manitoba. She has brought together health researchers and policy-makers from Manitoba Health and researcher-users from the regional health authorities across Manitoba to gain the population-based information that's needed to plan and deliver the most efficient and effective mental health services for the residents of her province. That report, which was released around six weeks ago, is now a best-seller, I can tell you, among policy-makers in the delivery of mental health services. That report is now being adopted by Manitoba and other provinces across Canada.

Second, Dr. Mandar Jog, of the London Health Sciences Centre in London, Ontario, with the help of Dr. Nikumb from the National Research Council, is developing a device that can be implanted surgically to provide ongoing brain stimulation to ensure the stimulation and targeting of the right area of the brain. This is a device that hopefully will help patients with Parkinson's disease. Dr. Jog has been helped by a CIHR "Proof of Principle" grant, a new program that we developed three years ago to help commercialize research results from CIHR-funded research. He has now received a Proof of Principle phase two grant that has brought him together with Sciemed Inc., a London-based company that is helping to further develop that prototype for the marketplace.

We're also moving forward as an organization. We've developed a strategic plan, called "Blueprint", to help us move forward over the next three years.

● (1140)

In the future we'd like to develop four major initiatives: one on commercialization that I've mentioned, a major initiative in global health research, clinical research platforms, and an exciting new initiative in regenerative medicine.

Members of the finance committee, I want to thank you, first of all, for your continued support for CIHR over the past four years and to urge you, as my previous colleagues have already said, to continue and grow that support over the next three years so that CIHR's budget can grow up to the \$1 billion that we need over the next three years to continue to deliver on the mandate we've been given by Parliament.

Thank you very much.

● (1145)

**The Chair:** Thank you.

The Canadian Consortium for Research. Mr. Ledwell.

**Mr. Paul Ledwell (Chair, Canadian Consortium for Research):** Thank you very much, Mr. Chair.

Thank you to members of the committee for the invitation to be with you today. I'm pleased to be with you as the chair of the Canadian Consortium for Research. With me is Dr. Don McDiarmid, who is a physicist with over 30 years experience in government science.

The consortium was established in 1976 to represent the broad interests of science and research in Canada. At present we represent 18 national organizations, whose membership comprises over 500,000 members—researchers, students, practitioners. In many ways, we speak on behalf of the research community that the agencies that are here today serve.

There are four main points we'd like to underline with you this morning: first, our brief is entitled "Maintain the Momentum", and really that's the main message we'd like to leave with you—that the Government of Canada maintain the momentum it has established in increasing research activity in all sectors; second, that the Government of Canada pay particular attention to the social sciences and humanities—as we've heard from Dr. Renaud this morning, there's presently an opportunity to really advance our leadership internationally in these fields; third, that the Government of Canada address government-based science needs; and finally, that the Government of Canada move to quickly address the question of core support for all Canadian universities.

As we've heard, the Government of Canada has made tremendous investments in research and education in the past nine years, all much-needed initiatives and greatly valued contributions to the research enterprise in Canada. These efforts have had important and positive outcome, not only for the research community and universities, but for the present and future prospects of our economy and the well-being of our society. It has also raised Canada's image throughout the world as a place where research, science, and education are highly valued.

But as Canada has invested, so has the rest of the world. I want to just give you two recent examples. First, in the U.S., your counterparts in Congress have led the move to massive investments in research. In 2002 they authorized a virtual doubling in the budget of the National Science Foundation to \$9.8 billion, and just on Saturday, they approved an \$800 million increase to the National Institutes of Health, bringing that agency's budget to \$28.6 billion. Overseas, in the U.K., through their investment framework for science and innovation, the budgets of the research councils will have increased by a factor of 2.5, to £3.3 billion by 2006-07.

Canada really needs to continue to invest if it wants to remain competitive against other industrialized nations. Targets for investment in the federal research agencies, in particular, should be clear, attainable, and sustainable. We've recommended in our brief that by 2008-09 the base budgets be set at such figures—\$460 million for the Social Sciences and Humanities Research Council, \$1 billion for the Canadian Institutes for Health Research, and \$1.2 billion for the Natural Sciences and Engineering Research Council.

In these investments we'd like to underline again that the government should place a priority on the budget of the Social Sciences and Humanities Research Council. Serving the largest research community and historically underfunded, SSHRC provides essential support for foundational and applied social and cultural

research in the fine arts, humanities, social sciences, law, and business.

I'll pass it over to Don to speak to government science.

**Dr. Don McDiarmid (Member, Canadian Consortium for Research):** One of the legs supporting the innovation system is science and technology in government. The CCR has become increasingly concerned of late about the state of government science and technology. Infrastructure is both wearing out and becoming obsolete. Programs whose value is partly in the breadth and long-term continuity of data collection are being cut back.

The Honourable David Anderson recently described the situation in the House:

The Canadian government's in-house science capacity in the areas with which I am familiar has substantially declined over the past 20 years. That is particularly true of ocean science and of Arctic science.

He also noted that there are many things university scientists will not do and which therefore must be done by government. He expressed concern about the government's ability in future to recruit and keep good scientific people. In this respect, we are encouraged that the national science adviser has been given the task of reinvigorating and revitalizing government science and we're hoping he can lead that to a positive outcome.

There are, however, some issues that need to be dealt with in the upcoming budget. We have given a couple in our brief, but there may well be others that are unknown to us. We can't wait until some future report on how to resolve this issue. It needs to begin now.

Thank you.

• (1150)

**The Chair:** Thank you.

**Mr. Paul Ledwell:** Finally, Mr. Chairman, if I could, on the issue of support for institutions of higher learning, Canada must continue to keep its best and brightest to attract top international researchers, and our institutions and researchers must have the foundations to be able to establish and strengthen international collaborations. To achieve this we need universities with solid support for the personnel and equipment required to nurture and challenge students and faculty at all levels.

Over the past decade, government operating grants to universities declined by 23%. Of course, the provinces share responsibility for the overall decreases in core university operating support. We are therefore hopeful that recent statements by the provincial ministers of education and the federal Minister of Human Resources and Skills Development will lead to a serious discussion about how we can collectively build more capacity in our institutions of higher learning.

In our brief we recommend that the Government of Canada recognize the crucial role that universities play in the training of the next generation of researchers and other skilled personnel, upon which the future economic health of Canada depends, and develop a renewed mechanism that delivers increased core funding for these institutions. Through all these measures, Mr. Chair, Canada will go from strength to increasing strength, truly driving the knowledge economy, enhancing opportunity for all Canadians, and being a leader in the world.

Thank you.

**The Chair:** Thank you.

La Fédération canadienne des sciences humaines, Mr. Owrain.

**Dr. Donald Fisher (President Elect, Canadian Federation for the Humanities and Social Sciences):** Professor Owrain is not here. I am going to represent the federation. I am Donald Fisher.

Thank you, Mr. Chair and the committee, for giving us this opportunity.

I am a professor at UBC. That's my day job; my voluntary job is to be the incoming president of the Canadian Federation for the Humanities and Social Sciences.

We've distributed a document to you and there's a longer brief that's been given to the clerk of the committee. I'm going to speak to you directly about some of the major points we make in our document.

First of all, the federation—I think you're all aware of this, but let me just remind you—represents 69 scholarly associations, 71 universities, and 30,000 researchers, scholars, and graduate students. This is the single-largest segment of university researchers in our society today that we represent. We try to represent them as best we can, both in terms of research funding and the general transfers to universities.

I want to take you back to something Monsieur Renaud mentioned and my colleague Paul mentioned a moment ago. I think we're at a critical moment in the history of the post-secondary education system in Canada and specifically at a critical turning point for the humanities and social sciences.

It's just about 50 years ago that the Massey commission—the Massey-Lévesque commission, some would argue—was charged with attempting to provide recommendations that would bring the humanities, the social sciences, and the arts up to scratch with the natural and applied sciences, to close the gap that was developing between the two cultures, as C.P. Snow put it.

Out of that commission report, of course, emerge the first federal transfers to post-secondary education, the creation of the Canada Council, the first grants for humanities and social sciences through the Canada Council, and federal transfers for capital development—50 years ago.

I want to argue that we have that same opportunity today. The federal government, in partnership, of course, with provincial jurisdictions, has an opportunity that in fact is probably more pronounced, more significant than the one 50 years ago.

Let me make three points, and they're within the context of what I take to be the most critical factor facing us. The baby-boom generation of academics—and that's me—are leaving the academy. The next generation is moving in: a massive change, a sea change in the academy. To take advantage of that, to make that really work for our society not just now but to make it a foundation for the 21st century, I think the federal government and the provincial governments have this tremendous opportunity.

How can we do this? There are three points, and I'll be brief. The first is that we argue that the federal government should provide an asymmetrical increase to the Social Sciences and Humanities Research Council of Canada. The council has been underfunded through the 1990s. In our brief we estimate that \$9.2 billion since 1998-99 through to the present has been provided in new funding for university research. Only 11% of that, \$1 billion, has gone to the humanities and social sciences. The same is the case if you compare the two councils of the institute now and SSHRC. It's the same proportion, about 12% of the total of new money.

We think this must be rebalanced. We must provide more funding for the social sciences and humanities. We want to argue that the current exercise, where \$12 billion will be found over the next five years to reallocate, is a perfect opportunity to reallocate funds for the humanities and social sciences.

Our two big recommendations beyond the first one, asymmetrical increase to SSHRC... The second one is this. We believe we need substantial increases in the federal transfer for our post-secondary education system. Without those transfers, the next generation will not be able to fulfill its promise. Indeed, without substantial transfers through the fellowship and scholarship arena, we won't be able to train and educate the next generation to fill all these new positions.

The infrastructure of our universities, the expansion of our universities, the rising student enrolment, and the need to expand capacity are all factors, we wish to argue, that should lead to a substantial increase in the transfers to the post-secondary education system. Linked to that directly, we also recommend a separate post-secondary education envelope, separate from the social transfer.

● (1155)

Let me conclude. The opportunity, unprecedented, I want to argue, in the history of the social sciences and humanities in Canada and unprecedented for governments at both levels, is to provide a platform for a renaissance for the humanities and social sciences, a renaissance in the sense that what this will do is link innovation, the knowledge economy, to these necessary outcomes, and it will provide the knowledge from the research that's being funded for the very priorities that have already been set: cities, early childhood education, aboriginal issues, and so on. So I urge you to consider these three recommendations.

Once again, thank you for the time this morning.

**The Chair:** Thank you.

The Natural Sciences and Engineering Research Council of Canada, Mr. Brzustowski.

[Translation]

**Dr. Tom Brzutowski (President, Natural Sciences and Engineering Research Council of Canada):** Thank you, Mr. Chairman. I too will be speaking in English, if you don't mind.

[English]

Thank you for the invitation to the committee. We always appreciate being invited and we very much value the time the members give to the consideration of our ideas.

Because you're so busy this year, we've prepared a very short brief, only two pages with two figures. I have no additional speaking notes to present. You will find as I speak that the points I make are entirely consistent with some of the points you've already heard from others around the table.

I wish to make only three points. The first is that since 1997 a series of investments made by the government to expand and enhance university research in Canada—that is, the activity that generates both new knowledge and the educated people who can use it—has been very successful, for the reason of timing we've already heard about. The professors hired in Canadian universities in the late 1960s and early 1970s are retiring in large numbers. They're being replaced by new people. These people are expected to do research, even if the people retiring didn't all do research.

Figure one shows the growth, since the 1997 budget, of the number of professors who apply to NSERC to do research—a very much larger number than those who are retiring with research funding. At the same time, the total number is staying pretty much constant. So we're seeing a changing of the guard of enormous value.

The second point to make is that their arrival is important, but what will be truly important for the country in the long term in creating the basis for sustainable prosperity in the next century will be if they stay here, if they develop their careers here, if they teach Canadian students, if they do their research here and come out with important findings, if they share those findings with our industry and our government agencies of various kinds, if they offer their advice as consultants. In short, they need to be kept here. CFI and the Canada research chairs program do a wonderful job in attracting some excellent people to this country, but to keep them here we have to keep paying for their research.

Figure two shows all the things that have to be paid for. I would hope members find the lists useful. Today I particularly draw your attention to the second line from the bottom, which shows that almost all the costs are continuing costs. Success in supporting research enterprises of this sort is, if you'd like a metaphor, much like climbing up the down escalator: you have to maintain the effort just to stay in place. It's not like climbing to the top of a mountain, having a picnic, and enjoying the view.

The third and last thing I'd like to bring to the committee's attention is that there are three mechanisms—three connections—between university research and wealth creation in the Canadian economy.

The first one you've already heard about. Those are the activities of the students who graduate after they've been taught by people who are right up to date in their fields. Many of those students—the ones

from co-op programs, and graduate students who have been involved in university-industry research partnerships—are immediately available to do that work. Some of the others require a bit of training in the corporations. That's one connection.

Second, there are university-industry research partnerships in large numbers in which Canadian university research helps solve industrial problems that can't be solved with existing knowledge. The time scale there is of projects of two, three, or perhaps four years duration. The students trained in those projects become immediately employable by the companies who are partners. This is a unique feature of the Canadian university research scene, and it's stronger here than anywhere else in the G-8.

Finally, there is the third mechanism, the one that seems to be the most glamorous and the one that seems to attract the most hope and the most attention. That is that basic research will every now and then unpredictably come up with some wonderful idea or invention that might then be commercialized not by existing industry but in fact, in the absence of what we call receptor capacity, by maybe new companies, and might create perhaps in the best case not only new companies or maybe entire new sectors, but create a new demand and a new market. NSERC has documented 134 cases of this happening, but sometimes it reaches back to grants given 30 years ago. This is a long process.

• (1200)

With all of that, Mr. Chairman, our need for a sustainable prosperity in this century will not go away. The world economy is not going to change from being a global economy. We must find new ways for Canadians to add value, to create wealth in the economy. That will be based on knowledge and on using it productively; therefore, we urge you to recognize this and to recommend to the government that the effort that has succeeded so well so far be sustained.

Thank you very much.

**The Chair:** Thank you.

[Translation]

From the National Research Council of Canada, Mr. Raymont.

[English]

**Dr. Michael Raymont (Interim President, National Research Council of Canada):** Mr. Chairman, members of the committee, good morning. Thank you for inviting me here today.

I'm pleased to have this occasion to address you on behalf of the interests we as the National Research Council represent across the country. I'm here today to address one singular issue related to the complex topics of productivity, innovation, commercialization, and research and development. I want to address this from the perspective of support for communities and the private sector in translating knowledge into economic wealth.

Specifically, a topic that must be addressed in this budget cycle is that there is an urgent need to reaffirm and renew the government's commitment to building on community-based technology strengths, networks, and collaborations under the national technology cluster strategy. The funding expires for many of these initiatives this fiscal year. As many members of Parliament know from personal experience, there is a truly exciting and energizing new level of collaboration, vision, and effort in communities from Vancouver to St. John's. Companies, community leaders, and researchers are working together to build local strengths in niche sectors from biotechnology to e-business.

I'm pleased to say that the Government of Canada is playing a unique and highly valued role. By focusing on key regional strengths and communities, we are seeing clusters of excellence emerging across the country, as opposed to a little bit of mediocrity everywhere.

• (1205)

[Translation]

For its part, the National Research Council of Canada has established new facilities, launched new programs and hired highly qualified people in Atlantic Canada and many of the key regions across the country.

[English]

We are proud of our contributions, but if we as a country are going to see more of Canada's investment in research commercialized to produce real economic and social benefits, we need to sustain the active involvement of many players, from venture financing to educational institutions to entrepreneurs and their skills development and international partnering. It is this systems approach that makes the link between research and commercialization the true value of the government's national cluster strategy, bringing all the necessary components together.

To achieve this objective, government has provided initial financing for certain cluster initiatives. Yet all experts and reviewers agree that government participation in cluster development must be a long-term commitment. This year, the five-year funding for the Atlantic technology cluster Initiative ends, and we're hoping that the government not only renews it but more importantly makes it an ongoing A-base commitment to the region.

The decisions on funding for technology clusters will of course have a major impact on our activities across Atlantic Canada as well as other regions. We are hopeful and believe we have made a good case. In this regard I would invite you to read the review of the report on Atlantic clusters—this document we've distributed to you today. As you will see, we've added an exciting new dimension to the life sciences cluster in Halifax with the construction of an industry partnership facility next to the NRC's Institute for Marine Biosciences and through our participation in the Halifax Brain Repair Centre.

In Newfoundland we are proud to be an influential force within the Oceans Advance public-private partnership, created in 2002 to champion the emerging oceans technology cluster in St. John's.

In New Brunswick our director general, who received the most nominations among the top 50 CEOs identified by *Atlantic Business*

magazine this year, has established a team of people who are leading in the e-business cluster.

Finally, this month we are pleased to celebrate the launch of the NRC's Institute for Nutrisciences and Health in Charlottetown as a major step towards the creation of a strong, world-class biosciences cluster on P.E.I.

[Translation]

These are exciting times in Atlantic Canada and a symbol of what Canadians are doing in communities across Canada.

[English]

Therefore, we would ask that we not undermine these efforts and signal support for the national strategy by continuing to build on the success of our initial investments. I would specifically ask that this committee reaffirm support for NRC's leadership role in the development of technology clusters in regions across the country, as part of a sustained long-term commitment to commercializing Canada's investments in research and turning them into new products, services, high-quality jobs, and increasingly productive and globally competitive businesses to the benefit of all Canadians.

Before I finish, I would draw your attention to two charts in the package that has been circulated to you. One shows that clusters evolve over time along a common path, and, as Michael Porter points out, the benefits can take twenty years or more to mature. The second chart shows how NRC's cluster strategy puts the private sector innovative firms at the centre of a series of supporting elements.

Mr. Chairman, members of the committee, thank you.

**The Chair:** Thank you.

[Translation]

From Genome Canada, we have Mr. Godbout.

**Mr. Martin Godbout (President & CEO, Genome Canada):** Mr. Chairman, distinguished members of the Finance Committee and esteemed colleagues.

[English]

It's a pleasure to meet with you this year to urge you to build on the government's unprecedented investment in research and development, especially for the next five years.



Created in February 2000, Genome Canada hit the ground running, and in only four years has catapulted Canada into the front ranks of countries involved in the truly groundbreaking research of decoding the language of our genes. During the past four years, Genome Canada has leveraged \$375 million in federal funding into more than \$800 million in research, involving over 2,000 scientists in 79 world-leading research projects in every region of Canada. With these projects, Genome Canada has built state-of-the-art science and technology platforms, of which one was used to sequence the SARS virus two years ago, developed partnerships with over 60 biotechnology companies, joined and in some cases led eight major international consortiums, and finally, produced over 70 inventions or patents.

• (1210)

[Translation]

At the same time, Genome Canada has developed an enviable international reputation as a leader in exploring the ethical, environmental, economic, legal and social issues emerging from these new fields of human knowledge.

In addition, we have launched an ambitious and innovative public outreach campaign to inform Canadians about this new field of human knowledge which will without question improve their quality of life in the very near future. The outreach was extended to MPs and Senators last week where we had the privilege of introducing a dozen genomic scientists, along with their respective research projects.

Four of these scientists are “brain gains” who now claim Canada as the environment of choice to conduct their research. The meeting was an opportunity for them to showcase success stories in wine, forestry and, of course, human health and infectious diseases.

[English]

Some have called this an impressive record. We call it a good start.

The decision to create Genome Canada was a recognition of the incredible potential of genomics to fundamentally alter our understanding of the world around us. Every living organism, from the smallest insect to the mightiest tree, from the fish in the seas to the crops in our fields, contains genetic code. Understanding that code offers us insight into the building blocks of life itself.

With the creation of Genome Canada our country declared its intention to be among the leaders in this new field of science. In many ways genomics is unique, because it will ultimately touch almost every sector of our economy and benefit every aspect of our society, from the way we treat disease to how we grow crops, protect our forests, see the environment, understand life, and imagine the future.

Just this past year we Canadians had a hint of the kind of dramatic, world-leading discoveries that are in store for Canada when Canadian scientists sequenced the SARS virus, the speed of which the World Health Organization called stunning. Little wonder, then, that Genome Canada's projects have attracted leading scientists from around the world and expressions of interest from such notable universities as Harvard, MIT, Stanford, Oxford, and l'Institut Pasteur.

The strategic plan we presented to you lays out Genome Canada's plan to build on an impressive foundation of high-quality research and to capitalize on the commercial opportunities before us. The emphasis on commercialization is not only appropriate, it is essential. After all, genomics has been called the next Internet, and just as the Internet propels business and economies, enhances productivity, and creates enormous prosperity for those who have understood its possibilities, so too will genomics expand the power of knowledge, grow the economy, and create opportunities for countries, companies, and investors alike.

[Translation]

To understand the potential before us, consider Genentech, a California-based biotechnology company that was created in 1976. Today, it is worth more than the Royal Bank, Alcan, Bombardier and Noranda combined. The time has come for Canada to create its own Genentechs.

[English]

Over the next few years we see more than 5,000 direct jobs being created in Canada in areas of genomic research alone; annual sales and exports of at least \$300 million of products developed through research funded by Genome Canada over the past four years; investment by venture capital firms of over half a billion dollars Canadian in several biotechnology companies using genomics and proteomics as technologies; and the revitalization of traditional industry through the application of genomics technology.

Mr. Chairman and members of the committee, you have built a strong foundation for research and development in Canada, providing the right instrument and funding that is unprecedented in this country. A return on this investment in social and economic benefits is within grasp. However, in the next five years you must continue to feed the momentum in a way that is predictable and in a way that recognizes the value for excellence. For Genome Canada that will require a further investment of over \$750 million over the next five years as Genome Canada is committed to matching funds and cofunding projects with other partners.

• (1215)

[Translation]

By continuing to invest in genomics and proteomics research, Canada will enhance productivity across almost every sector of our economy, provide Canadians with access to the latest in medical, environmental and industrial breakthroughs, attract both investment and leading researchers from around the world and help to brand Canada as a leader in the field of genomics and proteomics.

Mr. Chairman, members of the committee, thank you very much for your time.

[English]

**The Chair:** Thank you.

[*Translation*]

Committee members will each have six minutes to put their questions. Since there are five of us, that will take 30 minutes.

[*English*]

I have Mr. Harris.

**Mr. Richard Harris:** Thank you, Mr. Chairman.

Ladies and gentlemen, thank you for appearing before us this morning with your input. I know all of you are involved in particular sectors of research, and I know that collectively the contribution to our country is pretty tremendous.

We've been overwhelmed again with the information you've given to us, and as I stated to the earlier panel that appeared before us, I'm sure we're going to make some down time to go through it in a little more detail than we've had a chance to do today.

I will have follow-up questions, I'm sure, after I've gone through it, which I'll send by e-mail or letter to you. I just wanted to use my time to find out a little bit more about your organizations, as opposed to the people you seek funding for. Although I've seen your names, I don't know this exactly. I'd like to ask for clarity, are all of your organizations funded entirely by the federal government?

**The Chair:** Not all the organizations are funded. There are some that represent coalitions, such as Mr. Ledwell's group. I just did the exercise, but someone correct me if I'm wrong. The Social Sciences and Humanities Research Council of Canada is funded. Then you have the Canadian Foundation for Innovation—the third group that spoke—the Canadian Institute of Health Research, the Natural Sciences and Engineering Research Council of Canada, the National Research Council Canada, and Genome Canada, so you have six of the nine that are funded.

Am I correct?

**Mr. Richard Harris:** Six of the nine are funded by the federal government, so for the other three, where would your funding come from?

**The Chair:** The Association of Universities and Colleges.

**Ms. Claire Morris:** Mr. Chairman, thank you.

The Association of Universities and Colleges of Canada represents 92 member institutions across the country, universities and degree-granting colleges, and the association is funded by those members.

**Mr. Richard Harris:** Is it similar with the...?

**The Chair:** The Canadian Consortium for Research.

**Mr. Paul Ledwell:** The consortium consists of 18 national organizations, each of which is itself funded by its members. We represent over 500,000 members, students, researchers, and practitioners in all fields of the sciences.

**Mr. Richard Harris:** Thank you.

**The Chair:** Then you have the Canadian Federation for the Humanities and Social Sciences, right?

**Dr. Donald Fisher:** And similarly, we have 71 member universities and 69 national scholarly associations, and those members provide membership dues to the federation.

**Mr. Richard Harris:** I see. Thank you.

Mr. Godbout?

**Mr. Martin Godbout:** Genome Canada was created in February 2000 by a group of scientists led by the late Nobel prize winner Dr. Michael Smith and several other scientists and business entrepreneurs. We call it Genome Canada. This is not a Canadian government foundation, this is a not-for-profit corporation, but 45% of the funds it invests come from the federal government.

• (1220)

**Mr. Richard Harris:** Thank you very much.

**The Chair:** Mr. Raymont.

**Dr. Michael Raymont:** The National Research Council receives only about three-quarters of its money directly from the federal government. It generates the other quarter itself through contract research activities, licensing, and revenues.

**Mr. Richard Harris:** That's on behalf of clients.

**Dr. Michael Raymont:** Correct.

**Mr. Richard Harris:** Now, what's the difference between the Social Sciences and Humanities Research Council and the Canadian Federation for the Humanities and Social Sciences? Is there a link there, or do they just have the same name?

**Mr. Marc Renaud:** Well, we're the bank. We finance research. They are the representative of the universities and the associations. Our role is as a granting council; that is, we peer-review applications. They don't do this.

**Mr. Richard Harris:** Thank you very much. I appreciate that.

**Dr. Donald Fisher:** Our role is to promote research and teaching in the social sciences and humanities and to represent our members in an advocacy position—which is what we're doing today—and in all sorts of other ways. We subsidize publications, over 5,000 scholarly books over the last 60 years. We organize and coordinate an annual congress of the humanities and social sciences that brings together the majority of the 69 scholarly associations in one place to meet and present papers. In addition, of course, we come on the Hill and give breakfast; we organize presentations here.

**Mr. Richard Harris:** Am I done already?

**The Chair:** You have 20 seconds. I'll give it to Charlie after.

**Mr. Richard Harris:** Okay.

[*Translation*]

**Mr. Guy Côté (Portneuf—Jacques-Cartier, BQ):** Thank you very much for your presentations.

I would also like to thank the interpreters for doing such a good job. I want my colleagues to appreciate their work as well.

I have a few short questions for the witnesses. In your presentation, Mr. Fisher, you alluded to an increase in funding for research in the social sciences and humanities field. I'm not certain that I understood you correctly. Were you in fact alluding to the \$12 billion that Minister McLellan is planning to free up for this sector?

[English]

**Dr. Donald Fisher:** It would be wonderful if we got the whole \$12 billion, yes.

What I wanted to suggest was that the federal government specifically has an opportunity in the reallocation exercise to make the humanities and social sciences a priority, along with others that have been identified. As that money comes in and needs to be allocated, we would hope that some of it would be allocated to the humanities and social sciences.

[Translation]

**Mr. Guy Côté:** From what I heard in this morning's presentations, in your opinion, the government's innovation strategy has nonetheless proven to be effective and quite productive in recent years. However, at this point in time, we need increased funding to continue this forward progress.

My question is for Mr. Ledwell. When it comes to research, doling out money left and right can be effective, but we might be better off focussing our efforts on and allocating substantial sums of money to one very specific area.

If we were to go that route, should we be focussing on one area in particular, in your opinion?

**Mr. Paul Ledwell:** Before we identify specific areas, we should have a strategy in place to allocate funds to the research foundation. Working through the research councils, the CFI and other groups represented at this table, we need to devise a strategy for investing in the foundation. Then, yes, we could identify projects of particular interest, perhaps ones with international ties. However, before we formulate specific strategies, it's critical to have in place an overall funding strategy for the research foundation.

**Mr. Guy Côté:** Canada does not have a history of the private sector funding research. Perhaps I'm wrong, but that's the impression I have. First of all, is this still the case? Secondly, if it is, what steps can we take to encourage the private sector to invest in research?

Since you represent a number of organizations, Mr. Ledwell, I'm directing my question to you.

• (1225)

**Mr. Paul Ledwell:** I admit that historically, universities have led the way in terms of research. Therefore, we do believe it's important for the private sector to become more involved. However, we firmly believe that historically, universities have been the true centre for research in Canada. Therefore, we need to keep this model which has served Canada well.

**Mr. Guy Côté:** Thank you very much.

[English]

**The Chair:** Merci.

We'll go to Ms. Wasylycia-Leis.

**Ms. Judy Wasylycia-Leis:** Thank you, Mr. Chairperson, and thank you to all of you for your presentations today.

I don't disagree with any of your recommendations, and certainly I absolutely support the idea of investing in research and creative enterprise on a planned basis. The challenge for all of you is to counter what the government is getting from the other side of the

equation, those who think we have to get rid of the debt and that we have to put all our resources in that direction in order to save us for the future, to build a future for our young people.

What I want to know from all of you is your counter to that and your recommendations in terms of the macro fiscal policies, the right balance. How do you counter this push right now for the government to move rapidly to eradicate the debt and to engage in tax cuts before we use this huge surplus we now have for investing in Canadians?

I see there are several hands, so perhaps Mr. Bernstein, Mr. Renaud, and Mr. Fisher.

**Dr. Alan Bernstein:** It's an excellent point, and I would say two things in response.

First, you made the comment, how do we balance it for our children? I would say that if Canada doesn't continue to build a knowledge-based economy, there will not be an economy for our children. There will not be those high-tech, interesting, valuable jobs for our children. So I view this very much as an investment in our children.

The second point I would make is that these are investments. I think we should look at them as investments, not expenses. As with any investment, you are right to expect a return on that investment. I can assure you, certainly in the case of health research, there are huge returns on investment, from saving money within our health care system to establishing what is basically Canada's biotechnology from university-funded research funded by CIHR and others, hundreds of biotechnology companies that are creating wealth for this country.

I would say in both cases these are investments in our economy and in our children.

**Ms. Judy Wasylycia-Leis:** Mr. Renaud.

**Mr. Marc Renaud:** Somebody mentioned earlier that the innovation strategy of the Government of Canada has been very successful. I think that has to be said loud and clear. Since 1998 the federal government has invested and reinvested in knowledge in all kinds of different ways. The net result is that our universities are not doing now what they were 10 years ago. The will of young people coming into universities is extraordinary. They want to develop knowledge that is useful. They want to get the money to get there.

Just this week we had a visit from the upper brass of the European Union, because they are unbelievably impressed by what Canada has accomplished over the last five years. We had several science people this week, and we will have the upper brass of the DG research next week, just to say, "Wow, what did Canada do?"

I think the best defence is to say we've accomplished hugely, but it's not completed. I think government science, for example, still has to be looked at carefully. The social sciences and humanities need to be looked at carefully. They've said this. But all in all, it's a huge success.

The danger now is if we apply the brakes to this. I mean, it's easy for us to cut—you just turn the faucet. You get the success rate to go down from 40% to 20%, but the net result is huge demoralization. It's like putting the brakes on in a car when it's on ice—you don't have a clue where the car is going to go.

So I think that's the way to defend this investment, on its success and the danger of not pursuing that direction.

• (1230)

**The Chair:** Mr. Phillipson and Mr. MacKinnon.

**Ms. Judy Wasylycia-Leis:** Mr. Fisher, also.

**The Chair:** We have four. Twenty seconds each, please—and briefer if you can.

Mr. MacKinnon.

**Dr. Peter MacKinnon:** Thank you very much.

It was interesting to note, as Mr. Ledwell reported, that America, which is grappling with this huge debt problem right now, has chosen to make vastly increased investments in these areas to be competitive in the future. To be successful, as other countries internationally are investing, we simply have to make these investments.

**The Chair:** Thank you.

Mr. Phillipson, Mr. Fisher, and Mr. Brzustowski.

**Dr. Eliot A. Phillipson:** To specifically answer your question, we feel it's a question of balancing short-term versus long-term investments. The short-term investment, as you put it, may have immediate economic benefits for the country, but we need to ensure that does not replace the longer-term prosperity that will come from the investments in research.

**The Chair:** Mr. Fisher.

**Dr. Donald Fisher:** As I said earlier, I think we have an enormous opportunity to invest in the short term. In fact, that large investment now will be a long-term gain. The academics who will take up positions in the next five to ten years will be in the academy for the next thirty years, more than likely. The impact of putting money into the humanities and social sciences now, rebalancing the equation and therefore also rebalancing the internal life of our universities, will in fact have a long-term benefit. This is a long-term investment in the future of our society.

**The Chair:** Mr. Brzustowski.

**Dr. Tom Brzutowski:** Mr. Chairman, I think we have to recognize that the basis for sustained prosperity is wealth creation in the economy that can be sustained. Wealth creation occurs where value is added, and these days value is added by embedding knowledge in products, or goods or services. Research does not create wealth, but research creates the capacity to create wealth. Then people in industry—because business is the business of business—create wealth. If we're successful, we can then lessen our dependence on

commodity exports in all sectors, and seek to add value in all sectors and export products that allow Canadian producers to set our own prices so we're not dependent on commodity market prices. This will happen. And as I pointed out, the behaviour of the graduates is almost immediate in this. The university industry projects give us a two-year, three-year, or four-year horizon in making improvements. Finally, basic research provides occasionally—or on the scale of decades—really great breakthroughs.

One has to advance on all of these, however sexy one of these might be relevant to the others.

**The Chair:** Thank you.

Mr. Bell, then I have Mr. Penson and Mr. Hubbard.

**Mr. Don Bell:** Thank you.

I appreciate the presentations we've heard here today. I gather your message generally is that the current support from the government has been effective in stimulating research in the areas you're talking about. Your request, if I can summarize it from the nine of you, would be to carry on with the existing programs and enhance them wherever possible. Is that a general statement by you?

I didn't hear too many specifics. As a finance committee, we're looking for some of the particular dollar amounts and things. But what I did hear coming through was a role for private involvement, which seemed to be encouraged by a number of you. One of you had private involvement at the centre of a chart; I think that was Genome Canada. And one of you listed indirect costs in your brief and on the back page. One of the questions I had was about your comment on indirect costs needing to be improved. I wondered if they were the same kinds of indirect costs as when you were talking about computer networks, electronics, accounting, and legal costs. There was a reference, and I'm—

• (1235)

**Dr. Tom Brzutowski:** Mr. Chair, I think that's a reference to my chart. These are the same indirect costs.

**Mr. Don Bell:** Okay, they're the same indirect costs you're talking about.

**Dr. Tom Brzutowski:** Yes, that's correct.

**Mr. Don Bell:** Okay, that was the issue.

The other question I had was for Martin Godbout. You talked about the technology clusters rather than “a little bit of mediocrity” across the country, which isn't effective. You want to see these technology centres?

**Dr. Michael Raymont:** That was my presentation.

**Mr. Don Bell:** That was the National Research Council? Then I jumped my line down as I went. Okay.

Regarding Richard Florida's book, *The Rise of the Creative Class*, to what degree do you feel the importance of quality of life indicators in some of the Canadian centres is instrumental in attracting and retaining the brightest and most innovative people we have?

**Dr. Michael Raymont:** It's very important, but it depends how broadly you define quality of life. Quality of life for people who are in a research or entrepreneurial environment is often having fellow researchers and entrepreneurs around. So you could have an innovative cluster in poor Manitoba, as long as there were enough people or a critical mass of like-minded people working intensively in a cluster specifically focused on a sector. That's why I argue very strongly for focus and not for a little bit of everything everywhere.

**Mr. Don Bell:** Okay. The reason I asked that question is that I know that provinces and municipalities have targeted attracting these kinds of businesses and industries to their communities, as part of their goals to target certain segments, particularly clean and green technology. The argument that Richard Florida makes, if I understand it accurately, is that rather than just the attraction of similar businesses or that cluster of technology, the way you attract the cluster in the first place is by having environments in which people.... It's somewhere in one of the briefs, which I was just looking at for the first time today, which indicates that the brain gain—the opposite to the brain drain—is very fluid in terms of where it can go in the world. It will go where it feels it's able to not just survive but also to thrive.

So I am curious about the difference, because as a former municipal politician trying to deal with a regional government as well that talked about trying to attract certain kinds of industry, the argument from Florida, which was different, was that if you stick to the basics of providing quality of life, then these people will come and stay. That's the reason. Things like schools, things like education for their children, things like cultural enhancement in the area are what retain these people, as much as it is having colleagues who are working on the same kinds of projects within a one-mile radius.

It's a different theory, I guess, from you have indicated.

**Dr. Michael Raymont:** No, I don't think it's a different theory. All those points add. That's partly why San Diego is a successful cluster area. It has a nice climate too. You can throw all those things in.

We've got the deck of cards we have to deal with in Canada, and there are extremely successful clusters in Canada. Consider the plant biotechnology cluster in Saskatoon. One might not think Saskatoon is the ideal place in which to live, but boy, if you're interested in that kind of a business with that kind of environment, there are some good schools and there's a good community, and because there is a whole bunch of encouragement there in the form of both companies and good researchers and good research institutes and good universities focused in that area, it does act as a magnet for people to come.

Of course, if you have good culture and good schools and a good climate as well, those are additional features, but they're not primary in driving people to a cluster.

**Mr. Don Bell:** I'm not talking so much of climate, meaning weather, as of the social infrastructure that goes with it.

The final question I had—

• (1240)

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

I have two people who want to add something, Ms. Morris and Mr. Phillipson.

**Ms. Claire Morris:** Thank you, Mr. Chairman.

In the interests of helping the committee with its search for numbers, I just wanted to clarify the reference to indirect costs. You're absolutely right in your description of indirect costs. If in fact we were to reach the 40% target, it would require \$400 million to support the indirect costs of research. It has a double benefit, not only of supporting the research activity but also of avoiding borrowing from the operating budget that is needed to receive the kinds of increasing numbers of students who are coming to university.

**The Chair:** Was that \$400 million?

**Ms. Claire Morris:** Yes.

**The Chair:** Thank you.

Mr. Phillipson, do you have a comment?

**Dr. Eliot A. Phillipson:** Thank you, Mr. Chairman.

The member is correct that quality of life in its broadest sense is a very important factor in attracting researchers to Canada—so our public education system, our public health system in places, and even the climate and the geography. But over and above those, most researchers that I know will not sacrifice their careers simply because of the quality of life—assuming that comparable quality of life can be obtained in other jurisdictions.

We are in competition in Canada with the leading research centres of the world, and many of them have a very pleasant quality of life and environment. It is critically important that we take advantage of our social programs and the quality of life in Canada, but without the investment in research we will not attract or retain these people.

In terms of focus and clusters, this appears to be Saskatoon day, because I want to use another example from Saskatoon, the recent opening of the Canadian Light Source, the largest science project in Canada in the past 30 years. At first glance, many people might have asked, "Why in Saskatoon?" Without going into the history of it, what I do want to point out is that it began with about two researchers in the discipline—and the president of the university will correct me if I'm wrong—and there are now 70 scientists and researchers who have been attracted to that cluster.

So over and above what some might view as the weather problems in western Canada, the attraction of the science is paramount.

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

Mr. Penson, and then Mr. Hubbard.

**Mr. Charlie Penson:** I'd also like to thank the panel for being here today—impressive presentations. I think you're speaking to the converted, largely, and it's pretty clear the message you're delivering today is that we've done a good job and we need to maintain it.

As a committee we have a balancing act we have to perform here. You've probably seen that there was a private sector group in just ahead of you. By the way, I think there were seven panels with ten people in total. I'm pretty impressed by the size of your delegation. I'm not sure if the objective is to overwhelm us, or if there's some hubris in your organizations.

On the overall objective for most people making presentations to the committee, the theme I've heard is largely the same. We need to maintain our standard of living in Canada, increase our standard of living. The question is how we do that. There was some debate started by Ms. Wasylycia-Leis in trying to determine what our priorities should be as a committee.

We are also hearing from the private sector. They're saying, "Just a minute, we have to control government expenditures, because we need some tax relief in order to make the kinds of investments that are necessary to have an uptake on some of the things you're developing and to have a chance to be competitive." Our major trading partner, the United States, is probably going to move again on tax relief. I know you've said they are also moving in other areas like yours.

So that's the struggle we have. What should the priority of government be at this time? It's not so much a question as an observation that the private sector feel they've been stalled in terms of productivity and competitiveness themselves, and they need some breathing room to be able to advance their cause. Therefore let's just have a look at these priorities and where we're going now.

Everybody, I guess, has been sort of eyeing the federal surplus in the last few years and saying if that's going to continue that's great, but there's no guarantee that will happen. If we are starting to sort out priorities, that's the job we have to do—just to let you know where we're coming from.

• (1245)

**The Chair:** Mr. Brzustowski, just a quick comment.

**Dr. Tom Brzustowski:** Mr. Chairman, I was very much taken with the list of questions the committee had prepared that all dealt with tax policy and tax cuts. But there is a linkage, as I see it. My credentials in understanding taxes are those of a very simple layman, but it seems to me that if the goal is to raise \$300, one can raise that with a 30% rate on \$1,000 of income; but if one raises income to \$1,200, you can raise that with a 25% rate. I've always understood that the wish of the private sector is for tax relief to be a relief in rate. I don't think anybody in the private sector is objecting; in fact they're generating more wealth.

My dream as a man in the street is that perhaps when these investments and research pay off in the open, global, knowledge-based economy in which we have to live by adding value based on knowledge to our exports, if we actually grow the amount of corporate profit, the amount of wages, and so on, we can have taxes at a lower rate and still gather all we need to make the investments that reflect our values as a people.

**Mr. Charlie Penson:** Mr. Brzustowski, I certainly agree with that. That has been the experience just this past year in corporate taxes. Corporate tax rates have decreased, but the amount of revenue coming in from that sector has actually increased. That is consistent with a whole bunch of other jurisdictions, where the theory has always been that if you lower taxes the government doesn't get lower revenue; they get higher revenue. So I agree with you on that.

The question is, what happens immediately? I think the long-term objective is still right, and you're right in what you're saying. But we have industry on the other side saying that the United States is going to move to lower corporate taxes, our real effective tax rate is still

considerably higher than theirs, and we need some tax relief in order to compete. That's the economy.

**The Chair:** Thank you.

Mr. Bernstein wanted to comment, and then Mr. Phillipson.

**Dr. Alan Bernstein:** I won't repeat the answers that were given earlier to that question. I think it's an excellent one; it's probably the key question.

This point has been made, but I want to put it in a slightly different way. The United States invest \$28 billion U.S. in the National Institutes of Health, CIHR'S counterpart. I believe they do it for two reasons. One is because we still don't have cures for the diseases that people everywhere care about, whether its heart disease, cancer, mental illness, etc. Secondly, I think they understand that the whole foundation of the next generation of industries is going to come from that investment, whether its the biotechnology industry, medical devices, or computers. The major driver of change in the computer industry these days is the life sciences.

So I think we're seeing a global phenomenon here, where increasingly there are huge investments by government up-front in creating the basic knowledge, and in the people, as Dr. Brzustowski has emphasized, who are so key to these knowledge-based industries. If Canada is going to continue to participate in that global forum of knowledge-based industries and economies, we have to be a player. Increasingly, it's really the government that has to invest in those up front, in partnership with industry.

The other point I would make—again to expand on some examples—is there are so many examples where a penny saved is a penny earned. Certainly in the case of health research, which is a \$120-billion industry in this country, there are many opportunities for evidence-based savings. I'd be very happy to document later perhaps examples of where CIHR-funded research has resulted in millions of dollars in savings to the Canadian health care system—huge savings.

**The Chair:** Mr. Phillipson.

**Dr. Eliot A. Phillipson:** Thank you.

I understand the dilemma you're faced with. If I understand your question, the suggestion was that perhaps because of the tremendous investments in research, which we've all acknowledged, perhaps there is room for a short breather while you attend to other priorities.

The problem is there's no such thing as a breather when it comes to research. We had a breather in Canada in the early 1990s, and we had a massive brain drain. That has been reversed. It's critically important that we maintain the investments, not simply because we want to retain the researchers—which in and of itself is an important objective—but also because of the students they will be training who will be needed in those very industries to which you referred, if we are ever going to exploit all of this new knowledge.

While the private sector may have made the comments that they did, what we hear from the private sector is that they want the investments in research for both the knowledge they might exploit, but even more importantly, for the trainees they will then employ in their shops who will use that knowledge.

• (1250)

**The Chair:** Thank you.

Mr. Hubbard, quickly.

**Mr. Charles Hubbard:** Thank you, Mr. Chair.

I can't help but be enthused about what we've heard around the table this morning. I think back to a few years ago when Dr. Ron Duhamel was the minister in charge. He came to our group at that time and asked for further funding. He's no longer with us, but I want to acknowledge his work. Above all, I would like to thank the groups for coming.

I would point out that we're not talking about spending here; we're talking about investment. When we invest in research and development, it's really the backbone of our industry and of our country.

There is one problem, though, and I don't expect an answer to this just now. In certain areas of our country not much money flows for research through your various councils. I know it has improved in the last number of years, but certainly there are provinces and regions that don't get a share equal to their populations.

Perhaps you have some points you might bring to the attention of our clerk or chair on how we could facilitate, for example, the work you are doing, Mr. Renaud, in Atlantic Canada—in particular where I come from. It would be of benefit to us to try to be more aggressive in looking at some of the problems we have in certain western provinces, and especially in Atlantic Canada.

Thank you.

**The Chair:** Mr. Renaud.

**Mr. Marc Renaud:** First of all, you're right about Dr. Duhamel. He was an incredible inspiration to all of us.

On how to help certain regions of the country, we'll provide you with data concerning social sciences and humanities, where we can mathematically show that if our success rate were to move up, certain parts of the provinces would benefit enormously from just a 10% increase in the success rate. That would re-balance a lot of the problems we now have.

**The Chair:** Thank you.

I have a quick question. It might be an unfair question, but since we're talking about investment and this is the finance committee, if I were to hypothetically invest in your organizations—and I'm going to address this question directly to the seven organizations that get money from the government—do I get a return on my money? Who has received a return? We're talking about research. When I think about research, I think about the pharmaceutical industry, where they put in tons of money. It might take five, ten, or twenty years to develop a product, but eventually they're going to make money. At what point do I make money? It might be an unfair question, but I want to keep it brief.

I'd like to have some input from—I'll go in the order I have here—the Social Sciences and Humanities Research Council.

**Mr. Marc Renaud:** On return investment, look at our brief on pages one and two. We list a series of research projects, one that is

actually getting Canada to be one of the most multicultural countries in the world, accepting of migrants. We have 250,000 migrants a year coming here; it's the highest level in the world. Thanks to the knowledge we're developing, this is happening smoothly. We give the example there of how our knowledge is helping the rebuilding of downtown Winnipeg. We're giving an example there of research that actually helps Canada to be competitive in selling its natural resources to the rest of the world and making sure that we have the right competitive advantage.

You won't expect from social sciences and humanities a product at the end of the day, but you can expect a lot of the conditions under which wealth creation can occur. I think we're delivering this in spades.

**The Chair:** The Canada Foundation for Innovation.

**Dr. Eliot A. Phillipson:** Thank you, Mr. Chair.

You are correct, there should be a return on investment.

**The Chair:** Just a brief answer.

**Dr. Eliot A. Phillipson:** It will be brief. The Canada Foundation for Innovation was only founded in 1997, but based on our annual reports there's considerable evidence—and I would refer you to page eight in our brief—of the early indicators of commercialization in terms of patents, spinoffs, licensing agreements, and licensing revenues by institution. The longer-term economic and social benefits, which indeed are the true ultimate return on investment, generally take a little longer than two, three, four, or five years. It's been noted that 50% of the gross domestic product in westernized countries today can be traced back to ideas that came out of the physics revolution in the 1920s, 1930s, and 1940s. Indeed, most of the technology being used in this room today can be traced back to that investment in knowledge.

• (1255)

**The Chair:** My point is this: some of the technology we're using in the room today the Canadian Foundation for Innovation does not get a return for. Society does, but not the actual foundation. Am I correct?

**Dr. Eliot A. Phillipson:** That is correct.

**The Chair:** The Canadian Institutes of Health Research.

**Dr. Alan Bernstein:** I never met an investor who didn't expect a return on their investments, so that's an absolute. I would say short, medium, and long-term expectations are quite reasonable.

In the short term, you should expect savings—in the case of CIHR in the health care system, building an innovative, cost-effective, 21st century health care system. We can give you tons of examples of that.

In the medium term, you should expect and are getting the start-up of biotechnology and medical device companies that are producing jobs and ultimately products that will benefit Canadians economically under health. And this takes a long time, so in the long term you might expect to have companies that actually are successful in the long term. One example in Vancouver, Angiotech Incorporated, has a \$40 billion cap on the American stock exchange. It was started ten years ago as a result of investments from MRC/CIHR of \$100,000.

**The Chair:** Right. But we don't own any stock in that company, do we?

**Dr. Alan Bernstein:** No, we don't, but we reap the taxes and the economic benefits of starting those companies.

**The Chair:** Natural Sciences and Engineering Research Council.

**Dr. Tom Brzutowski:** Mr. Chairman, we're not the investor, we're the agent of the taxpayer. As a result of the investments made in NSERC, there are tens of thousands made through NSERC. There are tens of thousands of Canadians working in our economy, doing everything from producing innovations, new products in response to market feedback, to starting new companies, using knowledge generated in Canada but also using the 96% of the world's knowledge in science and engineering that's generated in other countries and adding to the strength of our economy. That's the return. It's not to us as an agency.

**The Chair:** National Research Council of Canada.

**Dr. Michael Raymont:** Yes. It's always been part of NRC's mandate. So the fact that you can build buildings in the prairies of concrete, type-five sulphate-resistant cement, 1930-something-or-other—that's NRC. Radar, cheap magnesium production—it's NRC in both those cases, and right up to the present-day meningitis C vaccine. So social and economic benefits save thousands of lives of children and improve thousands of lives of others.

If you take the IRAP program, which is one of our flagship commercialization programs, I can provide you with an independent report that shows way over ten times return on investment of dollar for dollar.

**The Chair:** IRAP was successful, but none of the money went as an investment; it just went to help subsidize the companies, right? We didn't get money in return for that?

**Dr. Michael Raymont:** It's the choice of the program not to ask for repayment.

**The Chair:** No, that's fine.

Genome Canada.

**Mr. Martin Godbout:** In my previous life, Mr. Chairman, I was in venture capital for seven years. I learned the hard way how to raise money and make money.

When we created Genome Canada as a not-for-profit corporation, we had a lot of... "un-friends", I would say. After two years of negotiation with universities, we do have contractual relationships with all the universities wherein if and when there is an outcome, the genome centres will be entitled to up to one-third of the net revenues. That one-third will have to be reinvested in genomics and proteomics.

When we deal with biotechnology companies—there are 12 of them—genome centres, our affiliates in the regions, do have equity in the biotechnology companies. So we believe in outcomes, but that's the way our model is done.

**The Chair:** Thank you.

Again, sorry for going over the time, but I think it was well worth it. If any of you want to make additional submissions through the clerk, that would be more than welcome, but keep them brief.

Thanks again for coming.

The meeting is adjourned.

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