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## STRATEGIES AND POLICIES FOR INTEGRATING THE CANADIAN FINANCIAL SECTOR INTO FINANCING THE TRANSITION TO A LOW-CARBON ECONOMY

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## About the Report

This report presents the results of the second phase of the EEPN funded project “Strategies and Policies for Integrating the Canadian Financial Sector into Financing the Transition to a Low-Carbon Economy”. The objective of the project is to develop policies to incentivize the Canadian financial sector to invest in the transition to a low-carbon economy in Canada. Therefore, the following research questions have been analyzed:

1. What policies exist on a national, regional, and global level that support the integration of the (private) financial sector into climate finance?
2. What can Canada learn from these policies to increase the participation of the Canadian financial sector in financing the transformation to a low-carbon economy?
3. What strategies and policies are needed to incentivize the Canadian financial sector to invest into the transformation into a low carbon economy?

This report presents the results of the third question.

## Review of the Green Economy Roadmaps, International and National Policies

The first research question based on the various climate finance policies that exist at a national, regional, and global level, which support the integration of the private (financial) sector into the low-carbon economy, was addressed in this literature review. A total of 26 national and international guidelines were analyzed and classified into three categories:

- National affiliates of the International Finance Corporation’s Sustainable Banking Network;
- Nations not affiliated with the Sustainable Banking Network; and
- International Guidelines.

These guidelines and regulations were published after 2012, which marked the inception of the IFC’s Sustainable Banking Network coalition. The study adopted an open coding methodology to identify the most topical themes across the 26 policies. These themes were sorted into three sub-groups by their purpose, characteristics and operationalization. Broadly the purpose of all these sustainable finance guidelines and regulations were to either manage risks or identify opportunities for environmental finance. Guidelines and regulations were sorted based on three characteristics of collaboration, regulation and reporting. In terms of operationalization, they were analyzed based on the products and services they offered.

The analysis of the different guidelines and policies resulted in the following strategies. These strategies have been presented to the Canadian financial sector representatives (see below for more details about the survey):

- **Managing risks:** Financial institutions may favour clear guidelines to integrate environmental and social risks into existing credit risk management. Best practices and standardized guidelines presenting a common set of principles was encouraged. *Systematic risk assessments* and a strong risk rating framework were key in holding clients with major environmental and social risks accountable. A key component of this was to develop and implement an action plan for major risks involved, including effective stakeholder communication mechanisms and risk mitigation measures. However, major potential risks should give banks and financial institutions the authority and flexibility to hold or terminate disbursement of financing.
- **Identifying opportunities:** Aligning products and services with sustainability principles can be a *business opportunity*. Businesses working with favorable policies can further incentivize green finance and this includes risk awareness, reporting, better understanding of carbon opportunities as well as adapting to changing market realities.
- **Collaboration:** Establishing collaboration between various global and regional public and private sector actors was critical in climate finance principles. These partnerships allowed for value sharing and dissemination of expertise between stakeholders. Such collaboration can be realized through *multi-agency or inter-agency partnerships* and can be something as basic as providing expertise in preparing financial reports. Stakeholder and financial sector collaboration was seen as an important step towards more cohesive policy-making. Furthermore, a *shared climate fund* was also mentioned in several reports, as a tool to attract private sector investments into international climate finance.
- **Reporting:** An important aspect of reporting was embedding sustainability indicators into the existing system. Given the variety of international and national agencies that provide frameworks and indicators, *integrated reporting* was encouraged amongst the private sector. However, there is still a need to standardize framework to promote international alignment across G20 jurisdictions and provide a common framework for climate-related financial disclosures. By doing so, it would make it possible to track and measure the sustainability performance of any financial institution.
- **Regulation:** Amongst direct regulatory tools, environmental taxes, *tax-related incentives* and tax exemptions were offered. Although there were both, negative and positive impacts of taxation (or the lack of it), it was the tool that was most traditionally used. Other incentives including guarantees, compensations and climate subsidy on interest rates, were also highlighted. If

financial sector increased risk exposure to green projects (higher initial investment, longer payback periods, implementation of new technology with unproven results, and insured losses) were some of the criteria cited for establishing a *guarantee fund*. Doing so had benefits such as increasing the issuer's credit profile, signal reliability and attract greater conservative investors.

- **Modelling:** In terms of *climate modelling*, medium to long term effects of climate change were important and needed to be explained. Scenario testing and stress tests were seen as an important tool of ESG risk assessment as well as understanding how they might affect businesses, strategies and their financial performance over time. Having a robust scenario analysis was mentioned to provide the financial sector the ability to be flexible and plan for the future.
- **Green Bonds:** Financial institutions play a distinct role in the *green bond market*, since they act as issuer, underwriter and investor. However, for green bonds having key disclosure about use of proceeds was important. Furthermore, increasingly important role of governments in market development, establishing common guidelines and investor commitment was highlighted. Green bonds can be further used to finance and refinance infrastructure, including various key sectors such as transportation, waste management, energy as well as in reducing emissions from traditional fossil fuel sectors (such as oil, gas and mining). However, in order to make these investments, there was a need to have clear guidelines on what is green and backed by the government.
- **Green Investment:** There is a clear understanding among investors that ESG issues are material to the assets financial performance. However, the reality is the low level of investment due to a higher perception of relative risk, which further limits *sustainable investment services*. Having greater green investment could mean opportunities targeted towards infrastructure development, human resources and manufacturing processes that reduce the risk of climate vulnerability.
- **Green Banks:** Green banks are able to provide assistance to conventional financial institutions by introducing sustainable lending products and services. Certain banks offer energy efficiency loans with interest rates linked to energy savings, whereas others offer partial guarantees for credit enhancement. It is important for many of these banks to work with the *development or public financing agencies* of that country and for Canada, this would apply to the services offered by Export Development Canada (EDC) and Business Development Canada (BDC).
- **Sustainable Stock Exchange:** By encouraging development and application of robust standards for investments, *stock exchanges and indices* can now align their criteria with sustainable development goals. Some global players like London Stock Exchange's FTSE and South African stock exchange, are already leading this field. The significance of tracking sustainability

performance will have big impact on how investors can integrate climate change into their decision making.

- **Asset Management:** Asset managers were regarded as the key players in influencing how investment decisions get taken. There has been some growth in *fiduciary duty* to include having more sustainable stewardship codes and management agreements. Due to climate change impacts, the current practice of pricing investments and managing funds are in the process of evolving. Policy makers can help provide clear direction and guidelines as to what is material to fiduciary duty of these asset managers and their portfolios in the long run.
- **Financial Regulator Policies:** Some financial sector regulators have issued low-carbon credit guidelines that have mandated banks to shift their lending portfolios into a greener direction. They have done so by creating cost incentives for green industry borrowers as well as increasing interest rates for borrowers with high carbon emissions. Additionally, lenders have to report on key indicators for the ratio of green loans and loans to high emitting industries in their portfolios. The regulator is then able to use the disclosure data to conduct research about the correlation between green loans and financial credit risks.

The next step was to create a survey questionnaire (see Appendix I) for Canadian financial institutions based on the 13 strategies described above. This survey explored which of strategies and policies might be best suited from a Canadian financial sector point of view, to help finance the transition to a low carbon economy. The following sections describe the survey methodology, results and is followed by an analysis as well as future recommendations of this report.

## Survey Methodology

As mentioned in the previous section, the survey questions were based on the best practices review (highlighted in the above section) of various climate finance strategies and policies that are currently being implemented around the world. The following is a list of the 13 important strategies that were highlighted in the previous section (based on the question flow in the survey):

- S1: Systematic Climate Risk Assessments
- S2: Business Opportunities
- S3: Public-Private Partnerships
- S4: Shared Climate Fund
- S5: Reporting Key Performance Indicators
- S6: Tax Incentives
- S7: Public Guarantee Fund

- S8: Public Financial Institutions
- S9: Climate Modeling and Risk Analysis
- S10: Asset Management and Fiduciary Duty
- S11: Sustainable Development Stock Exchanges
- S12: Green Bonds Market
- S13: Financial Regulatory Policies

These sub-topics were then evaluated by our participants using the following five attributes that have been extracted through a text analysis of the various guidelines and policies:

1. **Usability:** The general usefulness of the strategy to help integrating your financial institution into low carbon economy financing.
2. **Involvement:** The ability to increase the involvement of your financial institution into low carbon economy financing.
3. **Business opportunity:** The ability of the strategy to create business opportunities for your financial institution in low carbon economy financing.
4. **Risk management:** The ability of the strategy to decrease financial risks for your financial institution with regard to low carbon economy financing.
5. **Reputation impact:** The ability of the strategy to increase the reputation of your institution with regard to low carbon economy financing.

The participants evaluated each strategy based on the above mentioned five attributes and on a five point scale (with 1 being lowest to 5 being the highest). The respondents targeted ranged from associate, mid-senior, senior and executive level positions. The survey was sent out to a total of 33 participants from the following 7 financial sub-industries:

1. Commercial Banking
2. Credit Unions and Cooperatives
3. Insurance
4. Institutional Investing
5. Asset Management
6. Pension Funds
7. Other (including industry associations, crown corporations and microfinance institutions)

## **Survey Results and Analysis**

With 11 participants out of 33, the participation rate was 33 percent. The respondents were diverse in their representation of the industry sub-type as well as their position levels. In general all strategies have been evaluated a quite useful. The lowest average rating has been 3.2 on a scale from 1 to 5 with 5 representing the highest value and 3 being neutral. Hence, all strategies have been evaluated as positive. This section outlines the results of the survey based on the following categories: average response by question, average response by attribute and average response by attribute (filtered by attribute).

### **Strategy Ratings**

The following Table 1 presents the average ratings of the strategies in total and split by attributes. This data will be the basis for further analyses.



Table 1: Descriptive statistics of the strategy evaluations

Strategy		Usability	Involvement	Business opportunity	Risk management	Reputation	Total
S1: Systematic climate risk assessments	Average	3.91	3.80	3.09	3.73	4.00	3.70
	SD	1.14	0.79	1.38	0.79	1.10	1.08
	N	11	10	11	11	11	54
S2: Business opportunities	Average	4.09	4.45	4.36	3.64	3.36	3.98
	SD	1.14	0.69	1.03	1.36	1.36	1.18
	N	11	11	11	11	11	55
S3: Public-private partnerships	Average	3.73	4.09	4.00	3.36	3.36	3.71
	SD	0.79	0.70	0.89	1.12	1.12	0.96
	N	11	11	11	11	11	55
S4: Shared climate fund	Average	3.30	3.20	3.30	3.10	3.10	3.20
	SD	1.25	1.40	1.25	0.99	1.10	1.16
	N	10	10	10	10	10	50
S5: Reporting KPIs	Average	4.09	4.00	3.91	4.45	4.00	4.09
	SD	1.22	1.41	1.14	0.93	1.18	1.16
	N	11	11	11	11	11	55
S6: Tax incentives	Average	3.50	3.70	3.90	3.20	3.00	3.46
	SD	0.71	1.06	1.29	0.92	1.05	1.03
	N	10	10	10	10	10	50
S7: Public guarantee fund	Average	4.36	4.64	4.45	3.55	4.18	4.24
	SD	0.67	0.50	0.52	1.04	0.98	0.84
	N	11	11	11	11	11	55
S8: Public financial institutions	Average	3.45	3.36	3.55	3.09	3.09	3.31
	SD	1.21	1.21	1.21	1.14	1.14	1.15
	N	11	11	11	11	11	55
S9: Climate modeling and risk analysis	Average	4.00	4.22	3.44	3.78	4.22	3.93
	SD	1.00	0.97	1.42	1.09	1.09	1.12
	N	9	9	9	9	9	45
S10: Asset management and fiduciary duty	Average	4.09	4.45	4.18	4.18	3.91	4.16
	SD	0.94	0.82	0.87	0.87	0.83	0.86
	N	11	11	11	11	11	55
S11: Sustainable development stock exchanges	Average	3.70	3.80	3.90	3.90	3.80	3.82
	SD	1.25	1.03	1.10	0.88	0.79	0.98
	N	10	10	10	10	10	50
S12: Green bonds market	Average	4.18	4.18	4.09	4.18	3.82	4.09
	SD	1.25	1.33	1.45	1.33	1.25	1.28
	N	11	11	11	11	11	55
S13: Financial regulatory policies	Average	3.17	3.33	3.33	3.33	3.33	3.30
	SD	1.17	1.37	1.37	1.37	1.37	1.24
	N	6	6	6	6	6	30

As presented in Figure 1, the highest ratings have been given for Public Guarantee Fund (S7), Asset Management and Fiduciary Duty (S10), Green Bonds (S12), Reporting Key Sustainability Indicators (S5) and Climate-related Business Opportunities (S2).

The lowest, but still positive, responses were for Shared Climate Fund and Development Agencies (S4), Financial Regulatory Policies (S13) and working with Public (Crown) Financial Institutions (S8).

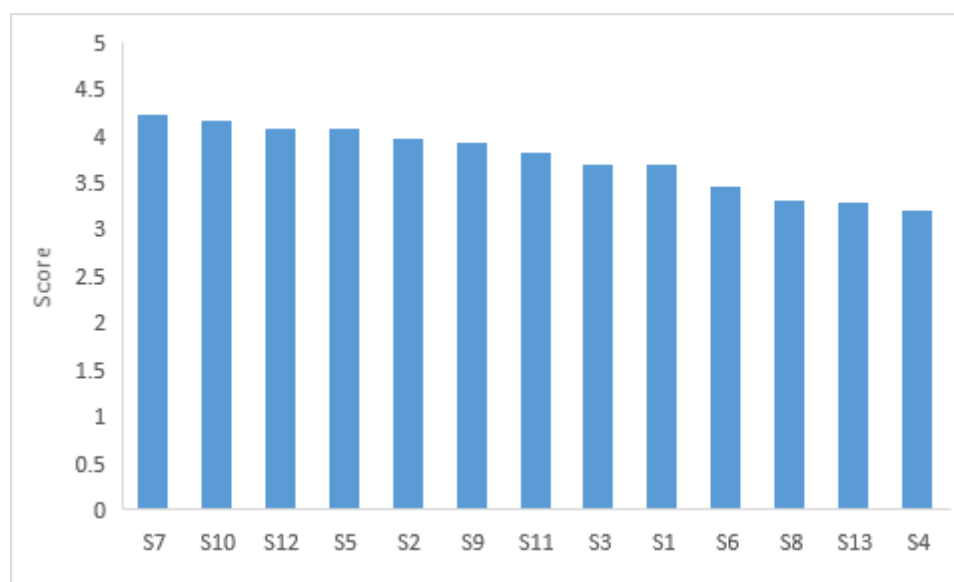


Figure 1: Average rating of the strategies

Though the difference in the evaluation of the strategies is not very big, there is some variance in the evaluation. The following Figure 2 presents the boxplots of the strategies. The grey part of the box represents the lower 50 percent of the responses and the yellow part represents the upper half of the responses. The end of the lines represent the highest and lowest ratings.

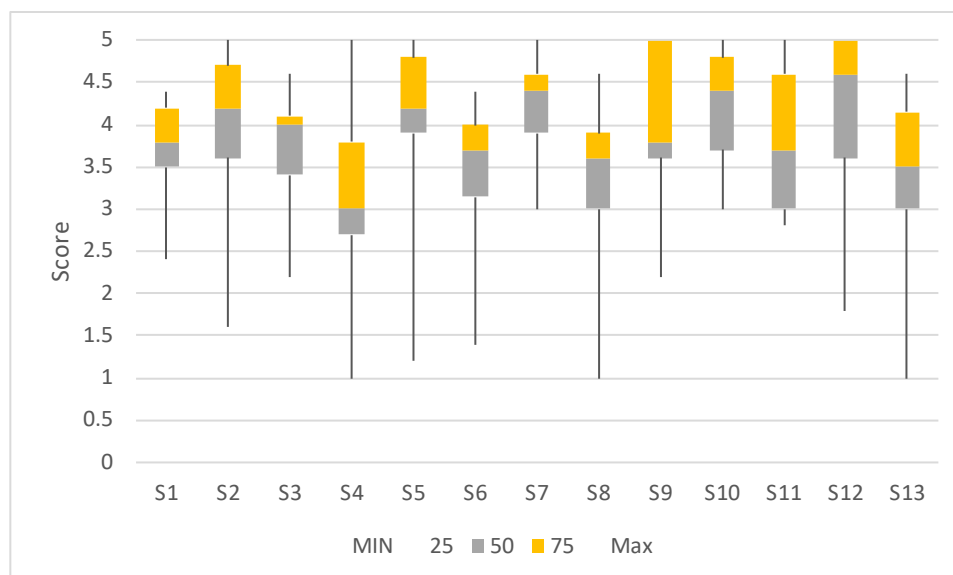


Figure 2: Box plots of the strategies

Figure 2 suggests that the highest variance for the Strategies 9 and 11. Furthermore, Strategy 11 and Strategy 4 are rather unevenly distributed. Strategy 9 has very high values. Though Strategy 4 has been rated rather low, there is still a number of respondents that evaluated Sustainable Stock exchanges relatively high. The Strategy 7 that has been rated with the highest values also has a relatively low variance. It seems that Public Guarantee Funds are seen as a useful strategy by nearly all the respondents.

In order to understand if there was any statistically significant difference between the responses with regard to the strategies, we conducted t-test with two strategies respectively. We found statistically significant differences between Strategy 7 (Public Guarantee Fund) and Strategy 4 (shared climate fund). Strategy 7 has been evaluated significantly higher than strategy 4 ( $p = .032$ ,  $t =$ ). Furthermore, Strategy 7 has been evaluated significantly higher than strategy 8 (Public Financial Institutions) ( $p = .037$ ,  $t =$ ). The differences between the other strategies are not statistically different.

## Attribute Ratings

The following Figure 3 shows the attributes which achieved the highest evaluation for their ability to involve the financial sector into financing the transition to a low-carbon economy. Interestingly, risk has been evaluated the lowest. It seems that financial institutions do not see high risk in financing the transition to a low carbon economy

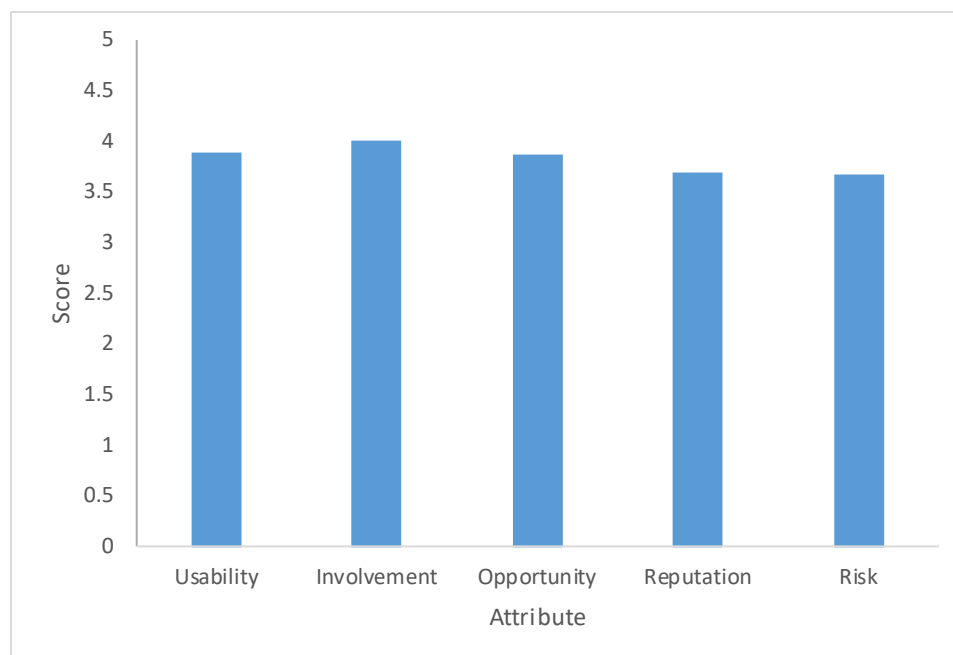


Figure 3: Average values for attributes

Some of the attributes have been evaluated significantly differently from each other. Involvement has been evaluated significantly higher than reputation ( $p = .022$ ,  $t = 2.72$ ) and has been rated higher than risk ( $p = .018$ ,  $t = .009$ ). Furthermore, opportunity has been rated higher than risk ( $p = .043$ ,  $t = .021$ ). However, in general, the responses to different attributes have been quite homogeneous.

### Strategy Ratings by Attribute

As we see in Figure 4, in terms of *usability*, the highest response was for Public Guarantee Fund (S7), whereas the lowest response was Financial Regulatory Policies (S13). In terms of *involvement*, the highest response was for Public Guarantee Fund (S7), whereas the lowest response was Shared Climate Fund (S4). In terms of *opportunity*, the highest response was for Public Guarantee Fund (S7), whereas the lowest response was Systematic Climate Risk Assessments (S1). In terms of *reputation*, the highest response was for Reporting Key Performance Indicators (S5), whereas the lowest response was for working with Public Financial Institutions (S8). In terms of *risk*, the highest response was for Climate Modeling and Risk Analysis (S9), whereas the lowest response was Tax Incentives (S6).

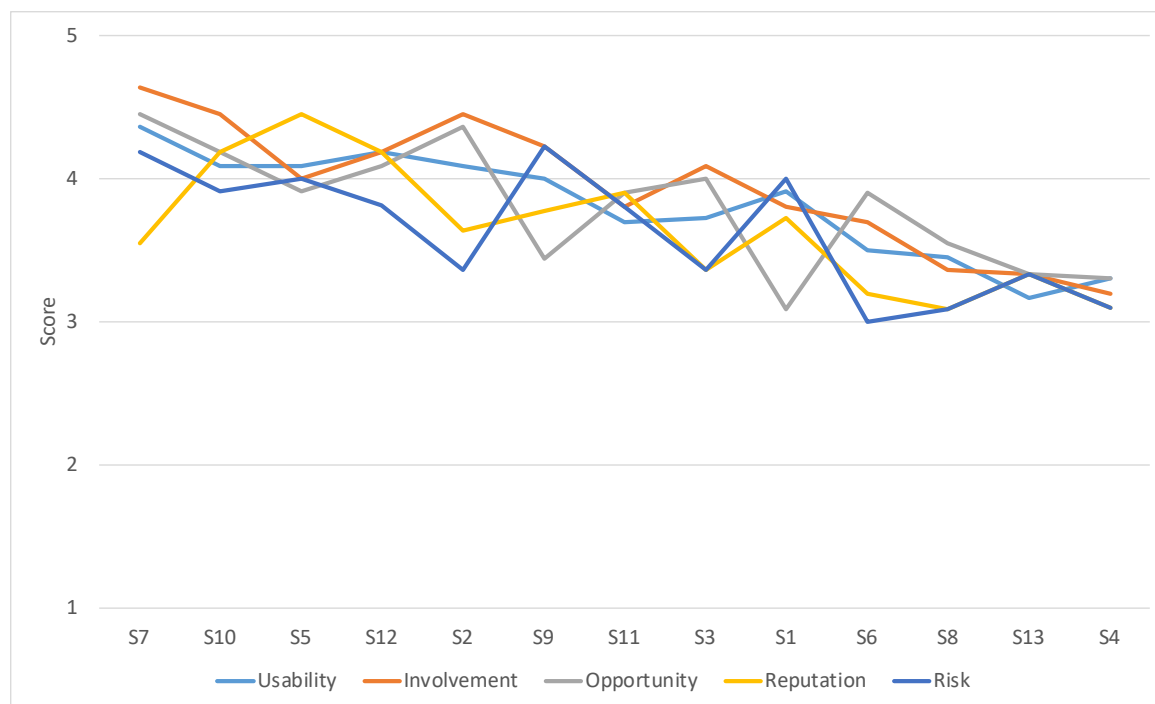


Figure 4: Average responses by attribute, filtered by attribute

## Strategy Ratings by Industry

Figure 5 presents the most preferred responses by industry sub-types. For commercial banks, having climate-related business opportunities, a public guarantee fund as well as climate and risk modelling were the top rated strategies. In terms of credit unions and cooperatives, having a public guarantee fund, participation in the green bond market as well as better climate-related business opportunities were important. Both the insurance and asset management sectors responded similarly as the commercial banking sector, preferring access to climate-related business opportunities, public guarantee fund and improved climate modelling and risk analysis. In line with their role as institutional investors, participants of the institutional investment sector prefer better climate modelling and risk analysis, clear guidelines on fiduciary duty, a public guarantee fund as well as stock exchanges addressing sustainability issues. Interestingly, they were one of the few with a high ranking of more public-private partnerships.

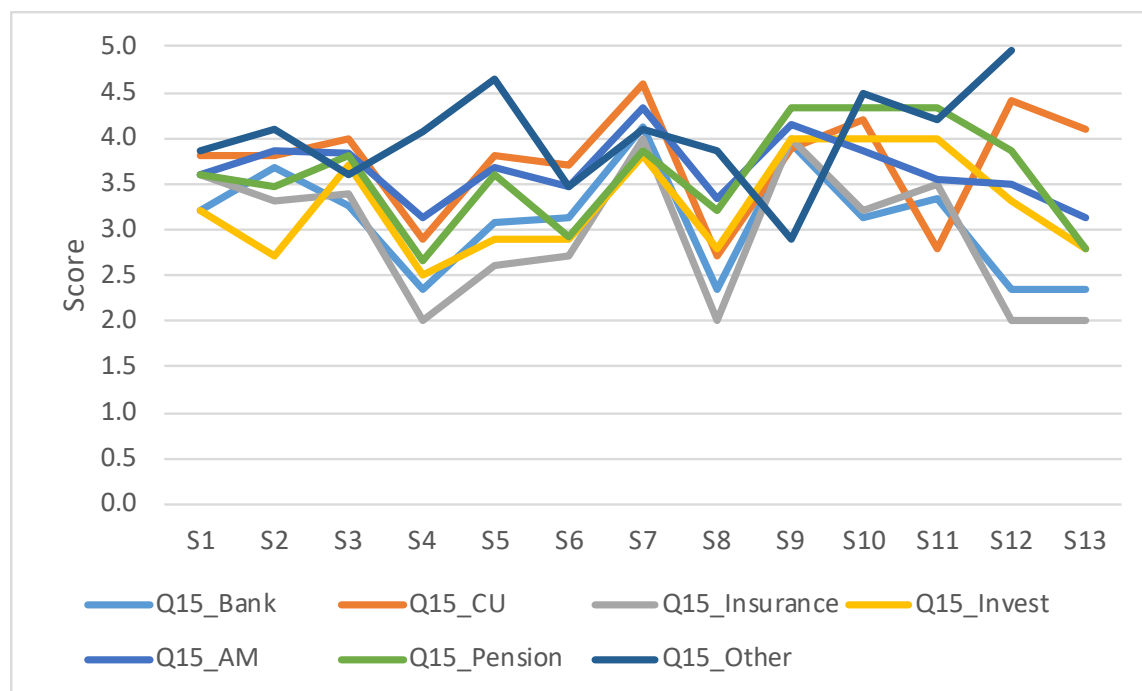


Figure 5: Average responses by industry

Although being a sub-group of the institutional investment sector, pension funds were significantly represented in our sample. Their analysis suggested that they favour better climate modelling and risk analysis, integrated reporting of KPIs and being part of the green bond market as well. For others in the financial industry (including industry associations, crown corporations and microfinance institutions). Strategies such as being part of the green bonds market, integrated reporting of KPIs and improved asset management through fiduciary duty, were also highlighted as important.

Strategies ranked highly by more than one industry were the following:

- Public Guarantee Fund (5),
- Business Opportunities (4), Climate Modeling and Risk Analysis (4),
- Green Bonds Market (3), Asset Management and Fiduciary Duty (3),
- Sustainable Development Stock Exchanges (2) and Reporting KPIs (2).

Overall, **public guarantee funds** or government-backed guarantee for high-risk climate-related investments was ranked as the most important strategy. In terms of second priority, **climate modelling and risk analysis** as well as the **business opportunities** resulting from climate change and climate change responses were important. This signaled the importance of having better climate risk scenarios and growing the opportunity for business in relation to climate change. Asset management and **fiduciary duty** as well as the **green bonds** market were third in priority. By this, participants wanted to have sustainability integrated into asset management codes. Furthermore, half of the respondents favoured a

clear set of guidelines for the green bonds market. Lastly, information-related strategies such as *reporting on KPIs* as well as *sustainable stock exchanges* were also important to our participants.

The following strategies were less favoured by the participants:

- Shared climate fund,
- Public financial institutions, green bonds market,
- Financial regulatory policies, systematic climate risk assessments and tax incentives.

For the responses analyzed based on industry type, having a shared climate fund was the least important to various sub-types in the industry. Similarly, having a public financial institutional (such as EDC or BDC) guide their investment or interfere in the structuring of their products and services was not seen as important by the participants of the study. Neither was having a clear set of guidelines or standards on green bonds (although to be noted here that half of the respondents were in favour of this, as mentioned in the previous paragraph). Finally, having government intervention or regulations, such as financial regulatory policies, systematic climate risk assessments and tax incentives were not popular among the survey participants.

## Conclusion

This study analyzed how Canadian financial sector representatives evaluate different types of strategies to integrate the Canadian financial sector into financing the transition to a low carbon economy. One main conclusion of the study is that all presented strategies have been positively evaluated by the participants of the study. None of the presented strategies has been rated lower than 'neutral'. Therefore, we conclude that strategies implemented in other countries and regions also could be successfully implemented in Canada.

One of the most favored strategy is a public guarantee fund. This fund could serve as a kind of first-loss insurance to motivate the financial sector to invest in part of the low carbon economy that are early stage and therefore are more risky. These types of funds have been used successfully in other countries. If they are conducted well, they are a relatively low-cost tool because financed project will be evaluated and the non-performing ratio will be small. Consequently, the fund will not have to pay for many losses. A governing body could be established that analyses applications from the financial sector to guarantee for projects.

Another useful strategy is to clarify the connection between low-carbon finance and fiduciary duty. There is still some uncertainty about whether low-carbon finance is in-line with fiduciary duty though most scholars would agree that it is (Lydenberg, 2013; Richardson, 2011; Waitzer & Sarro, 2012). However, submitting a clear message about fiduciary duty and low-carbon finance would help to integrate institutional investors, such as pension funds into financing the transition to a low-carbon economy. Additionally, guidelines on green bonds, and establishing key performance indicators connected with climate change risks have been perceived as useful tools by the financial industry. Currently, green bonds issuances are growing, but often transparency about the main investments and about the impact of green bonds is missing. This is a barrier for further growth in this industry (Weber & Saravade, 2018).

Furthermore, the Task Force on Climate Related Disclosures (2016) recently published a recommendation for standardized climate change related reporting that might help the financial sector to assess climate change related risks and opportunities. We recommend to implement these proposals in Canada to enable the financial sector to assess climate related risks and opportunities in a more standardized way.

With regard to the different attributes of the strategies, such as usability, involvement, opportunity, reputation and risk, we did not find significant differences in general. Institutional investors, however,



rated the importance of risk assessment and management higher while other industries rather addressed business opportunities related to financing the transition to a low-carbon economy.

As next steps in the research, we propose to analyze how these strategies could be implemented and how they could be adapted to the Canadian environment.

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## **Appendix I: Questionnaire**

# Canada's Low Carbon Financial System Transition

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## Start of Block: Introduction

1.0

### **Welcome to the research study: How to Integrate the Canadian Financial Sector into Financing the Transition to a Low Carbon Economy**

Dear Participant,

As mentioned in our email, we are conducting a study to understand how the Canadian financial sector can be better integrated into financing the transition to a low carbon economy. You will be presented with information relevant to this question and asked to answer some questions about it.

We have analyzed policies in different countries and regions that should help to integrate the financial sector into financing the transition to a low carbon economy. These policies will be presented in the questionnaire and we ask you to let us know how useful these strategies for your financial institution with regard to financing the transition to a low carbon economy.

In this project, "financing the transition to a low carbon economy" is defined as lending, investment, project finance, insurance, or asset management activities related to a low carbon economy, such as green technology, emission reduction, or sustainable infrastructure, conducted by private or public entities.

For each strategy that is presented in the questionnaire we ask you to evaluate their usability, their ability to increase involvement of the financial sector into low carbon finance, and their impact on corporate reputation, business opportunities, and risk management. The questions are defined as following:

Usability: The general usefulness of the strategy to help integrating your financial institution into low carbon economy financing. Involvement: The ability to increase the involvement of your financial institution into low carbon economy financing. Business opportunity: The ability of the strategy to create business opportunities for your financial institution in low carbon economy financing. Risk management:

The ability of the strategy to decrease financial risks for your financial institution with regard to low carbon economy financing. Reputation impact: The ability of the strategy to increase the reputation of your institution with regard to low carbon economy financing.

Please note that this survey will be best displayed on a laptop or desktop computer. Some features may be less compatible for use on a mobile device.

End of Block: Introduction

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### Start of Block: Concepts

2.0 Before proceeding with the survey, please take the time to go through the following concepts:

Usability: The general usefulness of the strategy to help integrating your financial institution into low carbon economy financing.

Involvement: The ability to increase the involvement of your financial institution into low carbon economy financing.

Business opportunity: The ability of the strategy to create business opportunities for your financial institution in low carbon economy financing.

Reputation impact: The ability of the strategy to increase the reputation of your institution with regard to low carbon economy financing.

Risk management: The ability of the strategy to decrease financial risks for your financial institution with regard to low carbon economy financing.

End of Block: Concepts

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Start of Block: Main Survey

**Q1 Mandating Systematic Climate Risk Assessments** For many countries, addressing systematic risk has been a top priority in order to build a low carbon financial system. Managing systematic risks in relation to climate change can include assessments, risk ratings and measuring risk exposure of financial projects. By mandating the assessments of these risks, some countries hope to provide a set of guidelines and industry best practices for improving overall risk from climate change.

For your organization, how do you rate a standardized set of guidelines and best practices, that **mandate systematic risk assessments** of environmental and social risks?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q2 Incentivizing Climate-related Business Opportunities** In order to create short and long-term business opportunities, there is a need for the right mix of policy alignment and financial incentives. Certain countries have recognized this and re-structured their policies to enable specific investments. For example, policy tools can be used to ensure measured investment into infrastructure. Some of these investments can also be geared towards specific sectors such as energy efficiency and low carbon transport. In the Canadian context, would your institution be in favour of strategies that incentivize business opportunities, such as financing new environmental projects or improving financial performance for similar projects?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q3 Public-Private Partnership in a Multi-Agency Setting** For better risk management and improved collaboration in a low carbon economy, some countries recommend using a private-public partnership framework. This allows for spreading the risk in new projects as well as increasing inter and intra-agency collaboration between financial and sustainability departments. In the context of Canada, how would **strengthening the PPP framework for a multi-agency collaboration** setting affect your institution?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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### Q4 Shared Climate Fund and Development Agencies

A good way to increase collaboration on climate change projects has been through the use of shared climate funds. Multilateral development institutions are a good example of such initiatives. Since March 2017, Canada has been participating in several multilateral development projects through its \$200 million supported Canadian Climate Fund for the Private Sector in Asia II (CFPS II). It is evident that such funds are not only instrumental in increasing public and private partnerships, but also helping the private sector in boosting local economies, improving market competitiveness and increasing economic diversification.

In the context of Canada, would your institution be in favour of a **shared climate fund**, that combines multilateral funds from public and developmental agencies as a way to attract private sector investments?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q5 Reporting Key Sustainability Indicators** Sustainability reporting allows for measurement of progress or identification of weak links across a range of key indicators. With internationally accepted standards such as International Financial Reporting Standards (IFRS) and the Task Force on Climate-related Financial Disclosures (TCFD) already in existence, it can be easy to ensure consistency and transparency across green investments. Furthermore, having a standardized set of key indicators promotes alignment across various jurisdictions. In the context of your institution, would complying with an internationally accepted standards of **key sustainability indicators** help in ensuring consistency and transparency across green investments?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q6 Tax Incentives** In order to ensure that regulations are effective in the context of a low carbon economy, a few countries have configured their tax codes to some extent. Some countries have included a tax-related incentive for instituting environmental control systems, management systems and programs. Similarly, others have allowed tax exemptions to banks investing in social enterprises or providing a climate subsidy on interest rates related to low carbon investments.

In Canada, would your institution be in favour of **tax incentives** that lower the cost of low carbon investments and initiatives? This may be in the form of tax exemptions to institutions that meet certain requirements, tax returns based on the institutions environmental or social contribution, or subsidies on interest rates for climate related project.

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q7

**Public Guarantee Fund**

For the low carbon economy to succeed, there needs to be adequate environmental projects available that offer the right balance of risk and returns. In some countries, green projects that have high risk exposure are provided guarantees by the government. Having such guarantees can lead to improved ratings and greater reliability of the investment.

In the Canadian context, would your institution be in favour of a **public guarantee fund to compensate financial institutions** for the increased risk exposure of green projects?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q8 Public Financial Institutions** It has become increasingly common to address low carbon growth through the medium of public financial institutions. Historically, this model of funding has been common among multilateral development agencies as well as national development agencies.

With the emerging prominence of clean technology as well as commercial competitiveness amongst emerging markets, Canadian crown corporations such as Business Development Bank of Canada (BDC) and Export Development Canada (EDC), are now leading the Canadian transition to a low carbon economy.

Would your institution be in favour of having **public financial institutions** (BDC on the domestic front and EDC on the international front) provide expertise on establishing services like green lending or green credit lines?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q9 Climate Modelling and Risk Analysis** The Task Force on Climate-related Financial Disclosures (TCFD) recommends the use of tools like scenario and sensitivity analysis, to predict combinations of climate-related risks. By using climate modelling and stress tests, financial institutions have been able to prepare for environmental shocks to their loan portfolios and investments. In the Canadian case, would your organization be in favour of adopting new means of **climate modelling**, through the use of enhanced stress testing, scenario, and sensitivity analysis?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q10 Asset Management and Fiduciary Duty** For certain financial institutions, asset management plays a big role in helping capital flow towards investments that provide long-term returns as well as fulfill fiduciary duty and management agreements. However, in the current system, backward pricing leads to significant dilution of these investments in the face of climate change. More recently, due to increasing awareness about climate change and a greater focus on fiduciary duty, asset managers are starting to manage funds using an environmental, social and governance (ESG) lens. Overall, this approach can allow for better representation of long-term risks as well as increase transparency in financial management. In this context, would your institution be in favour of holding **asset managers** accountable for their investments, by embedding sustainability into stewardship codes and management agreements?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q11 Sustainable Development and Stock Exchanges** A stock exchange is a good indicator of market confidence in the institution. With an increasing focus on low carbon financial transition, sustainability indices are helping align sustainable development with the financial system. They are doing so by using a unique eligibility criteria and classification system. This shift has been followed by various major international stock exchanges around the world. In Canada, how would your institution view aligning sustainable development into the **stock exchange**, through the use of eligibility criteria and classification systems or by requiring listed companies to report on their sustainability performance?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q12 Green Bonds Market** With the green bond emerging as a major climate finance tool, various financial institutions have started to play an important role in this market. Furthermore, financial institutions such as banks tend to hold a variety of different roles in this market, such as being issuers, investors or underwriters. Given Canada’s interest and growth of its green bond market, would your institution be in favour of more clear guidelines for **green bonds**, so as to help define issuance standards and exclusions?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q13 Financial Regulator Policies** Some financial sector regulators have issued low-carbon credit guidelines that have mandated banks to shift their lending portfolios into a greener direction. They have done so by creating cost incentives for green industry borrowers as well as increasing interest rates for borrowers with high carbon emissions. Additionally, lenders have to report on key indicators for the ratio of green loans and loans to high emitting industries in their portfolios. The regulator is then able to use the disclosure data to conduct research about the correlation between green loans and financial credit risks. In Canada's case, would your institution be in favour of having similar **financial regulatory policies** on low-carbon credit guidelines and disclosures?

	Not At All (1)	Low (2)	Neutral (3)	Somewhat (4)	High (5)	Not Applicable (6)
Usability (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Opportunity (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputational Impact (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk Management (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q14 Are there any additional strategies that you would like to propose? Please use the following space to do so.

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Q15 Which industry sub-sector(s) does your organization identify with? (You can choose more than one)

- Commercial Banking (1)
- Credit Unions and Co-operatives (2)
- Insurance (3)
- Institutional Investing (4)
- Asset Management (5)
- Pension Funds (6)
- Other (7)

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Q16 What level is your position?

- Associate Level (1)
- Mid-Senior Level (2)
- Senior Level (3)
- Executive Level (4)
- Board Member (5)

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Q17 If you would like us to provide us with any additional comments or queries, please use the following space to do so.

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4.0 We would like to thank you for your participation in this study entitled Strategies and Policies for Integrating the Canadian Financial Sector into Financing the Transition to a Low-Carbon Economy.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE#22765). If you have questions for the committee, contact the Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca.

Olaf Weber, Professor University of Waterloo  
School for Environment, Enterprise and Development 519 888 4567 ext. 38065 oweber@uwaterloo.ca

**End of Block: End of Survey**

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