



**Smart Prosperity
Institute**

THE RESILIENT RECOVERY FRAMEWORK

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THE RESILIENT RECOVERY FRAMEWORK

EXECUTIVE SUMMARY

Canada is caught in the crosshairs of twin crises. The combination of the COVID-19 pandemic and the global economic downturn have created a perfect storm, each intensifying the impacts of the other. The burden on households, small business, communities and vulnerable populations has been extreme. These are different problems that require novel policy tools and approaches to addressing. We need measures that support resilience, help the most affected populations, and reduce the risk of future catastrophe. Our focus should not be on simply returning to growth, but on growing smarter and cleaner to support a stronger Canada.

To assess which measures are best suited for the task, Smart Prosperity has developed *The Resilient Recovery Framework*. The Framework is an evaluative tool designed to identify measures that create timely economic growth and jobs, support clean growth, and invest in our communities as we emerge from the COVID crisis.

Using this Framework will allow decision-makers to combine leading theoretical best practices and expert insights to assess policies using three lenses: First, does the measure stimulate timely, lasting economic benefits and jobs? Second, does the measure help the environment and support clean competitiveness? Third, is the measure equitable, implementable and feasible?

The first lens is economic. The economy is suffering, so ideally policy should have a stimulus effect that is timely and targeted. If done right, we can ensure that jobs and investments are pushed towards areas that offer lasting benefits to Canadian workers and businesses. We can take steps today to position our economy for success in a decarbonized and digitized world, and make our communities more resilient to future disasters. In making these investments, there is a need to focus on the importance of creating jobs that grow the labour market, capturing more of the benefits of innovation within our borders, and positioning Canada to benefit from making early investments in rapidly emerging sectors. Furthermore, investments should make communities more resilient and better able to respond to extreme weather events in the future?

The second lens is environmental. The most present challenge here is the ongoing transition to net-zero economy by 2050 and adapting to the impacts of climate change. Yet green initiatives that reduce waste, remediate environmental damage, increase resilience, conserve ecosystems and restore habitats come with a host of co-benefits for public health and well-being. Creating jobs that invest in Canada's natural capital and low-carbon future is essential, and can offer opportunities to design, create and build the solutions that will preserve and grow our national wealth in the coming decades.

Finally, it is important to understand how clever ideas can be turned into the ingredients for a resilient recovery. This lens begins with understanding the impact of policy on equity and well-being, which will be at the forefront of this economic recovery. Questions around policy design also matter a great deal. Investing in a stronger and more sustainable future will require reaching those most affected, overcoming the existing barriers to growth, and collaboration between all levels of government and the private sector. If these factors are ignored, great ideas risk becoming ineffective policies for a resilient recovery.

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THE RESILIENT RECOVERY FRAMEWORK

Fuelling a Resilient Recovery

Canada is caught in the twin health and economic crises of the COVID-19 pandemic. A group of leading Canadian economists predicted the combination of the two will push Canada into its deepest recession since the 1930s and dramatically slow its return to growth in the coming years¹. Canada's unemployment rate of 13% is at a level unseen since the recession of the early 1980s, with the March and April Labour Force surveys noting that employment levels dropped by three million in the first two months of the pandemic², a decline of over 15%. The Bank of England forecasts United Kingdom GDP to fall by 14% in 2020, the largest single-year decline since 1706.³

In the coming months, as this crisis subsides, the conversation will turn to what kind of investments Canada should make to rebound from the recession. The sheer scale of the recession means that governments will soon make a once-in-a-generation investment to help reboot Canada's beleaguered economy. Past recoveries have ingrained lessons about the importance and effectiveness of certain economic measures. Calls for infrastructure spending and support for resource sectors appeals to our sense of national fortitude in the face of tough conditions.

Yet while Canada's resilience remains untempered, times have changed. This crisis has exposed the vulnerability of marginalized communities, illustrated the benefits of domestic industries, and provided hope for addressing future crises including a changing climate. Our national focus should not simply be on returning to growth but growing smarter, cleaner, and more resilient. Canada should re-evaluate the benefits of projects that increase domestic investment over the long run, offer health benefits to communities, and support equity amongst vulnerable communities. Canada has an opportunity to create economic growth today while making investments in a better future tomorrow.

To do so, a new lens is needed. In the 2008-2009 economic downturn, Smart Prosperity produced a green stimulus framework to assess proposed recovery measures⁴. Since then, much progress has been made in growing greener. The country has set a net-zero emissions target by 2050, dedicated over \$70 billion⁵ to clean energy and climate solutions, and created a national carbon pricing system along with a suite of other measures.

The emphasis today is not just on growing greener and more climate resilient, but on strengthening Canada's competitiveness in a global economy that is becoming more innovative, low-carbon, and resource-efficient. Policy measures need to look at whether they catalyze low-carbon development and support decarbonization targets.

To that end, this report introduces **The Resilient Recovery Framework**, an analytical tool purpose-built to assess the effectiveness of measures at supporting an economic recovery from this crisis. The Smart Resilient Recovery Framework offers an assessment framework to answer nine key questions organized under three themes:

¹Rathore, M. & Ghosh, I. "[Canadian economy likely in deepest recession on record, will only recover modestly over coming years: poll](#)". April 28th, 2020. The Globe and Mail.

²Government of Canada. [Labour Force Survey, March 2020](#). Statistics Canada.

³Conway, E. [Twitter](#). May 7, 2020.

⁴Smart Prosperity Institute, 2009. [Building a Green Economic Stimulus Package for Canada](#).

⁵Garossino, S. "[The serious \\$70 billion climate plan you heard nothing about](#)". June 27th, 2019. National Observer.

1. Does the measure stimulate timely, lasting economic benefits and jobs?
2. Does the measure help the environment and support clean competitiveness?
3. Is the measure equitable, implementable, and feasible?

3 INGREDIENTS FOR A RESILIENT RECOVERY

1

DOES THE MEASURE STIMULATE TIMELY, LASTING ECONOMIC BENEFITS AND JOBS?

TIMELY: Will it generate substantial economic activity and jobs within 6-18 months?

TARGETED: Will that job creation and economic activity be in areas that need it?

LASTING: Will it catalyze development and leverage investment that strengthen Canada's long-term competitiveness and fosters climate resilience?

2

DOES THE MEASURE HELP THE ENVIRONMENT AND SUPPORT CLEAN COMPETITIVENESS?

CLIMATE SMART: Does it support low carbon/climate resilient infrastructure, technologies, or practices that help Canada meet its climate targets?

GREEN: Does it help to reduce pollution and waste, restore natural systems, or remediate polluted sites?

CLEAN INNOVATION: Does it drive the development and use of new technologies and practices that boost environmental performance and resource efficiency?

3

IS THE MEASURE EQUITABLE, IMPLEMENTABLE AND FEASIBLE?

EQUITABLE: Does it have a positive or at least neutral impact on vulnerable, marginalized or underrepresented groups, such as Indigenous peoples and women?

FEASIBLE: Can it be implemented with existing institutions, policies and administrative capacity?

IMPLEMENTABLE: If there are market or other barriers that hinder implementation, can they be overcome?

Missing any ingredients?
Go back to drawing board.

Got all the ingredients?
It supports a resilient recovery.

This paper serves as an implementation guide for applying the Resilient Recovery Framework to assessing policy measures. This Framework combines leading theoretical best practices, practical considerations about the current economic environment, and insights generated from a network of experts to inform exactly how each question should be assessed.

This assessment guide details how policymakers should consider each question below by discussing the following elements:

- What is the context that makes this question relevant?
- What are the general policy challenges associated with these assessments?
- Which policy challenges are specific to this economic crisis that need to be considered in assessments of policy measures?
- What are the assumptions we make about the economy in the coming months? What do we know will likely be true, and what could be true under certain conditions?
- What are the individual indicators we should use to answer these nine broader questions?

Prioritizing projects that offer a “win-win-win” is smart. Not every policy measure in a comprehensive package needs to meet all the criteria outlined in this Framework. However, it is important that any projects with significant implications for the environment or clean growth score well on these criteria. Putting a sufficient number of Resilient Recovery focused projects forward is likely to be the difference between Canada maintaining climate progress and supporting a stronger economic future, and the nation stalling out or moving backwards.

Section 1: Does the measure create immediate, timely economic benefits and jobs?

The first theme of this report is assessing whether a policy measure will create timely, targeted, and lasting economic benefits. In short, during a recession, economic policies should have a stimulus effect. The established economic criteria for assessing stimulus relies on meeting three measures: timely, temporary, and targeted⁶. *Timely* examines whether a measure can generate economic activity quickly. *Temporary* considers whether public capital can avoid crowding out private sector investment once the recovery begins. *Targeted* involves generating activity in the areas or sectors where impacts have been most adversely felt, and putting back to work resources left 'idle' by the downturn.

This Framework incorporates those measures while building in an additional lens: does it support investment into a Canadian economy that will be more resilient (in both an economic and climate resilient sense), stronger, and cleaner moving forward? This point is critically important. The long-run growth prospects for different sectors across the country are heavily influenced by global trends towards decarbonization and digitization. Large-scale investments will likely include spending on the nation's physical and social infrastructure that are exposed to increasing climate risks. If directed appropriately, they can support domestic job creation and investment in sectors that will support the Canadian economy for both the short and long-term.

⁶ Zenghelis, D. 2013. "[In praise of a green stimulus](#)".

TIMELY: Will it generate substantial economic activity and jobs within 6-18 months?

CONTEXT: In short: will it stimulate the economy? For stimulus to be effective, it must occur while the economy is underperforming. In the words of Jason Furman, Chairman of the Council of Economic Advisers under President Obama, “Policymakers should act in a timely manner to lessen any economic downturn. Thus, fiscal stimulus should not be enacted prematurely, delayed too long, or consist of tax cuts or spending increases that would take too long to be implemented or to boost output.”⁷

THE GENERAL POLICY CHALLENGE: As described by Furman, the timing issue is more complex than simply ensuring that a plan is developed in the early days of a recession:

“Achieving timely policy is especially challenging because timeliness involves not just the enactment of tax cuts or spending increases but also the implementation of policy changes and getting the money out the door. In the worst case, poorly timed policies add instability to the economy, potentially exacerbating rather than damping businesses cycles.”

The lag between the announcement of a policy and the measure affecting the economy varies substantially depending on the type of instrument used. Spending policies, in particular, differ in their lags, as policies must go through stages of announcement, enactment, planning, “getting money out the door” and finally having that money propagate through the economy to be able to stimulate the economy. This provides a particular challenge for policies involving using public dollars for construction or procurement, as the 2008-09 Financial Crisis showed. The U.S. American Recovery and Reinvestment Act (ARRA) had substantial stimulus lags, as described by the Congressional Budget Office:⁸

However, large-scale construction projects generally require years of planning and preparation; for example, building new transportation infrastructure that requires establishing new rights-of-way and developing and implementing alternative energy sources would probably have their biggest effects on output and employment after the recovery was well along. As a practical matter, the experience with ARRA suggests that fewer projects are “shovel ready” than one might expect: By the end of fiscal year 2009, outlays for infrastructure spending from ARRA made up less than 10 percent of the budget authority granted for infrastructure in that year. Moreover, given the substantial increase in infrastructure funding provided by ARRA, achieving significant increases in outlays above the amounts funded by ARRA would probably take even longer. Thus, most of the increases in output and employment from this option would probably occur after 2011.

This crisis has proven that it is certainly possible for governments to get “dollars out the door” quickly. However, doing so while simultaneously meeting long-term economic and environmental challenges is a more complex problem. The May 2020 report [Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?](#) by Cameron, O’Callaghan, Stern, Stiglitz, and Zenghelis notes that the high-level policies with the strongest environmental benefits score poorly when judged on their speed at which the stimulus delivers real-world impact.⁹ Designing policies that are both fast and green will require creative solutions by policymakers.

⁷https://www.brookings.edu/wp-content/uploads/2016/06/0110_fiscal_stimulus_elmendorf_furman.pdf

⁸ <https://www.cbo.gov/sites/default/files/111th-congress-2009-2010/reports/01-14-employment.pdf>

⁹ In the study, 25 policies are ranked on three criteria: their implementation speed, the size of their economic impact and their environmental benefits. The top 9 policies on their “green” dimension all rank in the bottom-half of speed, while their top 2 policies on their “green” dimension (Clean energy infrastructure investment and Clean R&D spending) are the bottom 2 on “speed”.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: This downturn is inherently more complex than recessions of the past. In a typical recession, there is an external shock to the economy (such as a financial crisis), the economy falters, and governments can begin the work of repairing the damage. Policymakers typically do not work with full information and they are uncertain exactly how far the economy will fall or how quickly it will recover. However, they typically have some indication of the scope of the problem.

Our current reality is different; as the economy was put into a medically induced coma, to slow the spread of COVID-19. The federal government has [announced](#) that a return to normalcy will take three phases: the emergency phase where governments try to control the spread of the disease by shutting off most of the economy while compensating individuals and businesses; a restart phase where parts of the economy are gradually re-opened, and a recovery phase where policy is used to help the economy return to a state of full employment.¹⁰

This situation is more complicated, as we do not know when the recovery phase of the crisis will begin, nor do we know the extent to which parts of the economy will return. For example, some restaurants will never re-open, but do they represent 1%, 5%, or 25% of the jobs in the sector? While some data exist on the types of jobs and businesses most affected by the shutdown, we can only speculate on the state of the economy after all lockdown measures have ceased.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON'T:

- **LIKELY TO BE TRUE:** The economy will not immediately return to a pre-COVID state¹¹. Some jobs and businesses have been permanently lost¹², and the unemployment rate will be in the double digits, even after the ending of all lockdown measures.

FRAMEWORK FOR ASSESSING IF A POLICY PROPOSAL IS 'TIMELY'

- a. How long will it take to fully implement the policy?
- b. What is the timeline for creating jobs or stimulating investment?
- c. Will projects targeted be able to go through the phases of project design to consultation processes to getting started within 18 months?
- d. Will all the necessary government processes required to support this measure, such as budget mobilization and procurement, be conducted within an 18-month window?
- e. If the policy involves employing workers who were previously not employed in the industry, are there supports available to ensure those workers can become productive quickly in their new position?
- f. Will the direct and/or indirect economic benefits of the project be realized within 18 months of its implementation?

¹⁰ The U.S. Bureau of Labor Statistics defines Full Employment as "an economy in which the unemployment rate equals the nonaccelerating inflation rate of unemployment (NAIRU), no cyclical unemployment exists, and GDP is at its potential." <https://www.bls.gov/opub/mlr/2017/article/full-employment-an-assumption-within-bls-projections.htm>

¹¹ Prime Minister's Office (PMO). "[Prime Minister releases joint statement by First Ministers for restarting the economy](#)". Government of Canada. April 28 2020.

¹² O'Kane, J. "[Many small businesses opting to permanently close rather than wait out pandemic shutdown](#)". The Globe and Mail. April 21 2020.

TARGETED: Will that job creation and economic activity be in the areas that need it?

CONTEXT: During an economic downturn, there is considerable “slack” in an economy. Plants and machinery go idle, capital is not re-invested into the economy causing “dead money”, and a “reserve army of the unemployed” is created. As argued in Keynes’ seminal 1936 work *General Theory of Employment, Interest, and Money*,¹³ this scenario of less than full employment may persist, or become permanent, in the absence of intervention. Since the publication of the General Theory, governments around the world have successfully used Keynesian public policy to aid in economic recovery.

THE GENERAL POLICY CHALLENGE: For policies to be stimulative, they must cause resources that would have otherwise stayed idle to be used. The word “net” in our question is vital, as the purpose of these policies is not to redirect existing economic activity. For example, a government program designed to hire veterinarians is only useful if there is a pool of unemployed workers who are qualified (or could quickly become qualified) to take veterinarian jobs. If net job creation is not targeted, the policy will simply shift economic activity rather than create new activity or jobs. This policy would, therefore, have little to no aggregate positive economic impact, despite the expenditure of government funds.

An additional complicating factor for Canada is that the nation’s economy is not closed. Canada is highly dependent on international trade and investment. Well-designed economic policies keep this in mind and aim to ensure that the net new job creation and economic activity occur in Canada to the greatest extent possible. Policies should also attract, rather than inhibit, international investment.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: To put idle resources back to work, policymakers need to be able to identify what they are. While there is currently a basic understanding of which industries are closed and which groups are unemployed during the emergency phase of this crisis, it is not yet known how well each will recover once lockdowns are fully over. Will restaurants and small businesses return to normal, or will many of them not re-open, creating unemployment for those workers and empty storefronts where those restaurants once stood? These questions will inform where support should be targeted to support net economic activity.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON’T:

- **LIKELY TO BE TRUE:** Past recessions show that graduating from college or university during a recession has a ‘scarring’ effect on their career prospects, that can last a decade or more.¹⁴ It is expected that this recession will feature a “reserve army” of new graduates from many fields.
- **LIKELY TO BE TRUE:** International competition for manufacturing investment is likely to be intense. The crisis has shown the importance of having a strong domestic manufacturing industry that can be repurposed to produce critical supplies during a crisis.¹⁵ Countries around the world will develop a suite of new policies during the recovery to attract and retain manufacturing facilities and employment.

¹³ Keynes, John Maynard. *The General Theory of Employment, Interest, and Money*. 1st ed. 2018. Cham: Springer International Publishing, 2018.

¹⁴ Clarke, S. 2019. [“Coming of age during a downturn can cause scarring – and it takes up to a decade to heal • Resolution Foundation”](#). Resolution Foundation.

¹⁵ Russell, A. [“Coronavirus: Canadian companies now manufacturing ventilators, surgical masks”](#). Global News. April 2 2020

- **LIKELY TO BE TRUE:** Low oil prices may persist during the recovery, causing the sector's footprint in Canada to shrink, in terms of both output and employment¹⁶.
- **COULD HOLD TRUE:** Currently, the demographic group experiencing the largest drop in hours worked (from both unemployment and underemployment) is women under the age of 30¹⁷. This may persist through the recovery and form the biggest pool of 'idle labour'.
- **COULD HOLD TRUE:** The skilled trades, particularly those related to construction, have not declined as much as many other industries during the crisis and were facing skill shortages before the crisis¹⁸. This may persist, creating a lack of capacity for net new construction.

FRAMEWORK FOR ASSESSING IF A POLICY PROPOSAL IS "TARGETED"

- a. What is the specific 'idle resource(s)' that the measure is attempting to target? Be as specific as possible about the demographics or skills being targeted.
- b. How likely is it that significant levels of this resource(s) are truly idle?
- c. Would the resource(s) continue to be idle in the absence of policy, or would the economy quickly find a way to absorb it/them?
- d. If the policy intends to create net new jobs, is there an adequate local supply of unemployed or underemployed persons who could take those positions?
- e. To what extent will the initial new spending and economic activity propagate within Canada? For every dollar spent by the policy, how many dollars of net new economic activity will be created within Canada? What are the anticipated indirect effects?
- f. Does the policy help attract (or does it avoid hindering the attraction of) foreign investment into Canada's economy?

¹⁶Canadian Energy Research Institute (CERI). 2016. [Low crude oil prices and the impact on the Canadian economy](#). Calgary.

¹⁷ See March 2020 Labour Force Survey.

¹⁸ BuildForce Canada. 2020. [Construction and maintenance forecast 2020-2029: National summary](#). Ottawa.

LASTING: Will it catalyze development and leverage investment that strengthen Canada’s long-term competitiveness and resilience?

CONTEXT: Government spending during a downturn typically involves a substantial expenditure of government funds pushed towards pre-planned projects since these are typically closer to being “shovel-ready” in their development timelines. When spending is pushed towards pre-planned projects, it is likely supporting policy areas that were relevant to the nations’ long-term growth, climate resilience, and competitiveness before the recession. Therefore, continuing to spend in these areas remains smart, since it allows for short-term economic activity to be generated while investing in Canada’s long-term prospects.

Supporting growth in the economy can occur through one of two ways: Growing the size of the labour force, or increasing national productivity.¹⁹ To support lasting economic growth, economic policy needs to achieve one or some combination of both of these aims. Supporting both short-term and long-term growth, and reducing long-term costs from the effects of climate change, is possible by growing the size of the labour force today while making investments to improve future productivity.

Importantly, when considering long-term competitiveness, resilience must similarly be considered. This crisis has shown the need for countries and economies to be resilient in the time of crisis. Where possible, policies should not only ensure robust economic growth but also resiliency in the time of crisis from threats like extreme weather associated with climate change or future pandemics.

Finally, when aiming to create wealth, policy also needs to consider the role of intellectual property (IP). Generating IP within Canada can support the growth of domestic companies and help Canada generate a greater percentage of the returns from its investments. Failing to do so can lead to wealth being generated for foreign companies. Alec Ross describes the effect in his book *The Industries of the Future*²⁰:

“Before Uber there was in Italy, in Lyon, France, two or three mini-cab companies that used to compete... You had that in every city in Europe. They’ve all ceased to exist... You will still have drivers. But that’s the most unskilled job in the line. The rest of the money will flow to Uber shareholders in Silicon Valley. So a huge chunk of the Italian GDP just moved to Silicon Valley. With these platforms, the Valley has become like ancient Rome. It exerts tribute from all its provinces.”

GDP is a measure of production, but the income of a country is not just a function of what it produces, but also the intellectual property rents it can capture from outside of its borders.²¹

¹⁹ Specifically, think of the tautological formula $\text{Real GDP} = \text{Total \# of Hours Worked in the Economy} * (\text{Real GDP} / \text{Total \# of Hours Worked in the Economy})$. The first expression on the left-hand side is a measure of the size of the labour force during full employment, and the second expression is real GDP per hour worked (a measure of productivity).

²⁰ Ross, Alec. *The Industries of the Future*. First Simon & Schuster hardcover edition. New York, NY: Simon & Schuster, 2016.

²¹ Specifically, Gross National Income includes GDP as well as wages, salaries, and property income of the country's residents earned abroad, as defined by the OECD.

THE GENERAL POLICY CHALLENGE: The obvious way to return the economy to full employment is to try and restore the jobs that were lost during the downturn. However, one of the effects of an economic crisis is that it accelerates the market forces of “creative destruction”²² that were already present in the economy, such as retail moving from “brick and mortar” to online. By trying to reclaim lost jobs, a risk is that policymakers “lock-in” failing business models and hamper innovation. The challenge for policymakers is to return the economy to full-employment in a manner that does not impede innovation.

A further policy challenge is that many of the policies that would increase productivity, labour force participation rates, climate resiliency, or economic rents from innovation can conflict with other priorities, particularly for the need for spending to be timely or targeted. This need to balance priorities in a broader economic package is important.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: During this recovery, it may prove even more difficult than usual to build productivity-enhancing and climate resilient infrastructure promptly, due to a lack of available skilled trades-people. Otherwise, the challenges currently look similar to the financial crisis, although many trends that were present a decade ago are felt more presently today given recent advances in digital technologies and sustained increases in global emissions.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON'T:

1. **LIKELY TO BE TRUE:** There will be an enhanced domestic focus on enhancing resiliency, in both economic and non-economic terms, than in past recoveries²³.
2. **LIKELY TO BE TRUE:** There will be an enhanced foreign focus on enhancing resiliency. This may manifest itself in protectionism, which could prove challenging for a trade-focused economy like Canada.

FRAMEWORK FOR ASSESSING IF A POLICY PROPOSAL IS “LASTING”

- a. Will the policy lead to a long-run increase in the labour-force participation rate? If not, will it avoid leading to a decrease in long-run labour force participation?
- b. Will the policy lead to an increase in Canadian productivity? How?
- c. Will the policy reduce costs faced by firms (including but not limited to: transaction costs, transport costs, input costs)?
- d. Will the policy make communities more resilient and better able to respond to extreme weather events in the future? Does the policy encourage adaptation to actual or expected climate and its effects?
- e. Will the policy make the Canadian economy more resilient and better able to respond to future crises including recessions, pandemics, and natural disasters, including those induced or strengthened by climate change?
- f. Will the policy help support and finance early-stage research and development, or aid in the creation of intellectual property that can be used around the world, creating wealth for Canadians?
- g. What impact will the measure have on public debt, and will these impacts be sustainable?
- h. Will the intervention improve the competitiveness of Canadian firms over the long-run by supporting investments into markets, technologies, or sectors with favorable growth prospects?

²² Caballero, R. & Hammour, M. 1994. [The cleansing effect of recessions](#). The American Economic Review. 84(5), 1350-1369.

²³ Weber, B. [“COVID response offers chance to shift direction of Canadian economy: experts”](#). Canadian Press. April 5 2020.

Section 2: Does the measure help the environment and support clean competitiveness?

The second theme of this report is assessing whether an economic recovery measure is climate-smart, green, and supports clean innovation. Importantly, these three indicators are not identical. Assessing whether a measure is climate-smart requires understanding how the measure supports meeting national climate targets, both over the short-term and long-term. Furthermore, it requires an understanding of how measures can help Canada adapt to the effects of climate change. Measures can be green if they support efforts to reduce pollution levels, remediate past damages, or conserve and restore habitat. This represents a suite of opportunities, all of which can be tied to job creation, and illustrates that being 'green' means much more than directly reducing CO₂ emissions. Finally, assessing whether a measure supports clean competitiveness matters because transitioning to a net-zero economy will require investment in physical infrastructure, skills development, and low-carbon systems at an enormous scale. However, as previously noted, Canada's ability to capture the economic wealth generated from low-carbon innovation will depend on whether it designs, develops, and builds the low-carbon goods and services needed in tomorrow's economy. Measures taken today can support job creation and investment in low-carbon and clean technology opportunities that are primed for growth in the coming decades.

Discussions around green stimulus have historically emphasized opportunities to create jobs that have co-benefits of emissions reductions or cleaning up damages from pollution. This has been critically important in illustrating both the benefits of the green stimulus measures and the potential to do more. This Framework applies a systematic lens to the environmental criterion that could be considered by policymakers, encompassing criterion to assess measures that support the full range of policy objectives committed to by the Canadian federal government²⁴.

²⁴The full range of environmental targets committed to by the federal government can be found in the [Federal Sustainable Development Strategy 2019-2022](#).

CLIMATE SMART: Does it support low carbon/climate resilient infrastructure, technologies, or practices that help Canada meet its climate targets?

CONTEXT: Canada’s climate change targets have been set and updated through various international and domestic pledges over recent decades. Canada currently has two national GHG reduction targets. The first is a 30% reduction of greenhouse gas emissions below 2005 levels, a target enshrined in the United Nations Framework Convention on Climate Change Paris Agreement. The second is a domestic target to reach net-zero emissions as a country by 2050. Both commitments are voluntary. There are also the costs of climate change to consider, with the Insurance Bureau of Canada noting a “a rise in claims as a result of increases in severe weather events related to climate change.”²⁵ These costs can be reduced through smart investments in climate resilient infrastructure.

THE GENERAL POLICY CHALLENGE: Identifying and aligning measures with Canada’s climate targets is not as simple as just picking the measures that reduce carbon emissions. Meeting different targets requires different considerations²⁶. Achieving a shorter-term target calls for a smaller volume of absolute emissions reductions, but requires greater reliance on improving the emissions performance of existing assets such as infrastructure and vehicles given the reduced volume of asset turnover. Practices and technologies based around biofuels, co-generation with natural gas, and an emphasis on reductions in emissions intensity from existing operations can be useful for meeting these shorter-term targets.

Achieving a longer-term target of net-zero by 2050 calls for a far higher volume of absolute emissions reductions, and a dramatic acceleration of the annual rate²⁷ at which those emissions get reduced. However, there is also greater time to turn-over existing carbon-intensive assets and infrastructure over decades to transition away from fossil fuels. In this instance, fuel-switching or replacing existing systems with zero-emissions energy technologies and solutions will be required.

The overarching challenge for policymakers is the need to balance both targets. This balance can be understood through the “double attractor” metaphor (emissions reductions/carbon lock-in vs. decarbonization) introduced in Bernstein and Hoffmann’s 2019 paper²⁸. Some measures will be beneficial in reducing emissions to meet short-term targets, but will likely accelerate investment into, and support for, systems whose long-term use would slow or inhibit progress towards long-term objectives. These measures may reduce emissions, but also increase the likelihood of carbon lock-in over the medium to long-term if they extend the lifespan of fossil-fuel-based systems.

Other measures may support the uptake of technologies and measures whose full emissions reductions benefits might not be realized in time to support Canada’s 2030 target, but are essential in the nation’s net-zero transition. These are decarbonization measures that go beyond reducing emissions to support the development of systems (energy, infrastructure, transportation, political, etc.) that fully transition away from fossil fuels.

Climate resilience provides a particularly challenging set of issues for Canadian policy makers, as described by the Final Report of the Working Group on Adaptation and Climate Resilience²⁹:

²⁵ http://assets.ibc.ca/Documents/Facts%20Book/Facts_Book/2016/Facts-Book-2016.pdf

²⁶ Bernstein, S. & Hoffmann, M. 2019. “Climate politics, metaphors and the fractal carbon trap”. *Nature Climate Change*. 9(12), 919-925. DOI: 10.1038/s41558-019-0618-2.

²⁷ Sawyer, D. 2020. *Coming soon (very soon): Net zero by 2050*. Canadian Institute for Climate Choices.

²⁸ Bernstein & Hoffamn, *supra*.

²⁹ https://www.canada.ca/content/dam/eccc/migration/cc/content/6/4/7/64778dd5-e2d9-4930-be59-d6db7db5cbc0/wg_report_acr_e_v5.pdf

The impacts of climate change do not respect political or sectoral boundaries. No single region, sector, order of government, or organization can build climate resilience alone; collaborative and coordinated action is essential. From a government perspective, Environment Ministers are championing this effort, but building climate resilience will require leadership in every portfolio, from the economy to health. Furthermore, these efforts must extend beyond government to all aspects of Canadian society. Given the interconnected sectors and systems that Canadians rely on (e.g., health, food, water, trade, energy, transportation, natural environment), adaptation efforts must also be holistic, integrated, and systems based. Indigenous Peoples, given their holistic worldview and unique relationship with the land, have valuable perspectives and experience in this regard, and should be strong partners and leaders in adaptation going forward.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: Selecting climate-smart and climate-resilient measures for this recovery requires keeping two points in mind. First, a net-zero transition requires both spending and regulations to succeed³⁰. This is a “carrots and sticks” approach to decarbonization. Without policy providing a push in a lower-carbon direction, investments likely will not be directed towards measures compatible with climate goals. It is true that in this crisis, the continued existence of climate policies may serve to lower overall job creation figures in more carbon-intensive sectors or activities in the short-term. However, if policies or regulations are removed, there is a higher risk of investments being directed into technologies and systems that are not compatible with Canada’s long-term climate targets. This means regulatory removal risks today’s economic measures creating tomorrow’s stranded assets.

Second, many of the technologies we will use in a net-zero economy are not advanced enough for the market to support deployment at scale today. However, any energy infrastructure built in the next two years will likely still be in use in 2050. This means policymakers need to ensure that any infrastructure built to support investment and labour opportunities today is compatible with use in a net-zero economy.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON’T:

- **LIKELY TO BE TRUE:** Short-term GHG emissions decreases seen in Canada throughout the crisis will not offer long-term benefits as economic activity rebounds, mirroring trends from past recoveries³¹.
- **LIKELY TO BE TRUE:** Freezing, repealing, or removing existing or upcoming climate policy would shrink the long-run climate benefits of economic policy measures and increase the risk of funding future stranded assets.
- **LIKELY TO BE TRUE:** The long-run combined effects of climate change impacts and future pandemics will negatively impact the health of Canadians in every community³².
- **LIKELY TO BE TRUE:** Low oil prices may persist during the recovery, altering the relative economics of clean energy projects and/or stalling consumer shifts to low-carbon or clean alternatives.
- **COULD BE TRUE:** Business models, such as teleworking and telecommuting, may become more popular following the crisis, having unknown effects on emissions trajectories in the coming years.

³⁰ Barbier, E. 2010. *A Global Green New Deal*. UNEP. Cambridge University Press. First Edition. Cambridge, UK. DOI: [10.1017/CBO9780511844607](https://doi.org/10.1017/CBO9780511844607).

³¹ Glen P. Peters, Gregg Marland, Corinne Le Quéré, Thomas Boden, Josep G. Canadell, Michael R. Raupach. *Rapid growth in CO2 emissions after the 2008–2009 global financial crisis*. Nature Climate Change, 2011; DOI: [10.1038/nclimate1332](https://doi.org/10.1038/nclimate1332)

³² Costello, A., Abbas, M., Allen, A., et al. 2009. *Managing the health effects of climate change*. *The Lancet* 373: 1693-1733.

SUB-FRAMEWORK FOR ASSESSING IF A POLICY PROPOSAL IS 'CLIMATE SMART'

- a. Does the measure directly contribute to a reduction in absolute emissions by 2030 and/or 2050? If so, what is the forecasted reduction, and when will it occur?
- b. Does the measure reduce the costs of decarbonization for a particular sector or industry in Canada? By how much?
- c. Does the measure reduce physical risk to business operations and supply chains? If so, will the risk reductions occur within Canada's borders?
- d. Will the measure support changes in practices through business operations and supply chains? If so, will the majority of these emissions reductions impacts occur within Canada's borders?
- e. If the projected lifespan of an asset or technology-supported through this measure extends past 2030, is it compatible with use in a net-zero emissions economy?

GREEN: Does it help to reduce pollution and waste, restore natural systems, or remediate polluted sites?

CONTEXT: The world is facing unprecedented environmental challenges characterized by climate change, unsustainable resource use, biodiversity loss, water scarcity, and waste production. These challenges are further exacerbated by population growth and urbanization. There is a growing global recognition of the urgency of these problems, and the mounting demand for solutions has created an economic opportunity for the countries and companies that are able and willing to develop them.

Environmental co-benefits stemming from economic investments that address these issues can take a variety of forms. One is reductions in greenhouse gases (carbon dioxide, methane, nitrous oxide, ozone, and sulfur dioxide) and in physical waste streams, which aims to reduce the ongoing flow of pollution. Another is the remediation of past environmental damage, either through the remediation of polluted sites or the restoration of destroyed habitat to support conservation and biodiversity aims. Finally, there can be direct conservation of habitat to support natural protected areas and species at risk. These efforts can be broadly categorized as reducing, remediating, and restoring/conserving. Beyond protected areas, improved landscape management supports the flow of ecosystem services — pollination, flood regulation, climate mitigation and adaptation — to local communities.

THE GENERAL POLICY CHALLENGE: Pollution levels have historically decreased during recessionary periods, only to rebound during periods of economic recovery³³. This is due to a combination of factors including rebounds from decreases in industrial activity, overall mileage traveled, energy demand, and automobile sales³⁴. Additionally, regulatory measures meant to stimulate economic growth and investment have sometimes come at the expense of the environment. Governments have historically rolled back or relaxed compliance obligations for environmental regulations during periods of economic recession. In this current pandemic, the United States has issued a directive that was **characterized** by the former head of the Environmental Protection Agency as “a nationwide waiver of environmental rules for the indefinite future”.³⁵ It is likely that the combined effects of demand rebounds and relaxed environmental standards, if pursued in this downturn, will have similarly detrimental effects on the health of natural systems.

A final consideration is the importance of balancing competing environmental priorities during an economic recovery. One cautionary tale from the economic recovery in the 1930s was the development of hydropower dams in Banff National Park, following a re-designation of Lake Minnewanka and the Ghost River as being outside park territory to permit development.³⁶ While there are clear contrasts between the 1930s and today, this example does illustrate the importance of weighing trade-offs between projects with different types of environmental benefits. If goals of habitat conservation, low-carbon energy, climate resiliency, or reducing pollution come into conflict, policymakers may have to prioritize certain aspects at the costs of others.

³³ Peters et. al, *supra*.

³⁴ Tong, D., Pan, L., Chen, W., Lamsal, L., Lee P., Tang, Y., Kim H., Kondragunta S., & Stajner, I. 2016. [Impact of the Global Recession on air quality over the United States: Implications for surface ozone levels from changes in NOx emissions](#). *Geophysical Research Letters*. 43 (17). DOI: 10.1002/2016GL069885

³⁵ Beitsch, R. “[EPA suspends enforcement of environmental laws amid coronavirus](#).” *The Hill Times*. March 26, 2020.

³⁶Armstrong, C. & Nelles, H.V. “Wilderness and waterpower: how Banff National Park became a hydroelectric storage reservoir”. *Energy, ecology, and the environment series, 1925-2935* , No. 5. University of Calgary Press, Calgary, Alberta, 2013. <http://hdl.handle.net/1880/49374>.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: The health crisis will likely shift the cost-benefit calculus about projects that reduce pollution, remediate damages, or conserve/restore habitat. Namely, the potential health impacts of reducing pollution (specifically air pollution) will likely be more salient. One recent study found that an increase of only 1 µg/m³ in PM_{2.5} is associated with a 15% increase in the COVID-19 death rate.³⁷ Newfound awareness of the compounding negative effects of pollution on public health has increased calls to reduce pollution and remediate damages.³⁸ It is likely that if job arguments can be credibly made around the value of remediation, conservation, restoration, adaptation, and pollution reduction measures, there will be a greater public appetite for ambitious measures.

However, it is also possible that this sentiment leads to action in the other direction. The repeal of single-use plastic bag bans across the US is an example of a measure that could increase pollution that is perceived as justified for public health reasons³⁹. Ensuring measures taken to improve public health reduce pollution, instead of increasing it, will be critical.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON'T:

- **LIKELY TO BE TRUE:** Emissions and pollutant levels will likely rebound to pre-crisis levels following the ending of social distancing measures, creating further environmental damage without explicit intervention.
- **LIKELY TO BE TRUE:** Existing emissions reductions due to global stay home measures (less driving, less flying, more local food purchasing) highlight the limits of individual behaviour change to achieving Paris targets. This emphasizes the need for transformative action (and/or systemic changes) to achieve climate targets and low-carbon future.
- **LIKELY TO BE TRUE:** Nature-based solutions to climate present a relatively inexpensive to both mitigate climate change and increase adaptive capacity in the future through landscape protection and restoration.
- **COULD HOLD TRUE:** Limited fiscal capacity and a sluggish economic recovery could reduce the scope and stringency of future environmental policy to conserve habitat or reduce waste and pollution levels. This would be due to the fear of creating a regulatory burden in a slow recovery.
- **COULD HOLD TRUE:** Greater discussion around public health has increased the attractiveness of taking measures to reduce our vulnerability to respiratory diseases and future pandemics.
- **COULD HOLD TRUE:** Green and natural infrastructure projects present opportunities to attract private capital to conservation efforts in a stimulus context. ,

SUB-FRAMEWORK FOR ASSESSING THE 'GREEN' OF A POLICY PROPOSAL

- a. Does the measure have a direct or indirect impact on the environment? What is it?
- b. Does the remediation or restoration effort or initiative in question have co-benefits linked to public health? What are they?
- c. Will the measure play a meaningful role in supporting biodiversity, habitat conservation, or soil/air/water quality? If so, what will it be?
- d. Does the measure directly reduce pollution levels? If not, does it support the adoption of practices that remediate/mitigate the damages caused by pollution?
- e. If the measure will not directly support improvements in environmental outcomes, does it aim to change consumption or industrial patterns that have negative effects on the environment?

³⁷ Wu, X., Nethery, R., Sabath, B. M., Braun, D., & Dominici, F. 2020. "Exposure to air pollution and COVID-19 mortality in the United States". Pre-print. DOI: 10.1101/2020.04.05.20054502

³⁸World Economic Forum. [The link between air pollution and COVID-19 deaths](#). April 29 2020.

³⁹Murphy, H. "[California Lifts Ban on Plastic Bags Amid Virus Concerns](#)." New York Times. April 24 2020.

CLEAN INNOVATION: Does it drive the development and use of new technologies and practices that boost environmental performance and resource efficiency?

CONTEXT: The demand for products and processes with a lighter environmental footprint is expected to continue to grow rapidly. Overall, generating low-carbon and circular economy solutions is projected to be a massive source of global wealth and jobs across all parts of the economy, worth US\$26 trillion and creating 65 million new jobs by 2030⁴⁰. Early signs of these opportunities can be seen in the fast-growing markets for solutions like renewable energy, zero-emission vehicles, energy efficiency, water treatment, and sustainable agricultural solutions.⁴¹

Canada has many of the ingredients needed to succeed in capturing a significant share of these growing global markets: strong education and research capacity, and bold entrepreneurs. Combined with high levels of expertise in many of the sectors seeking clean technology solutions – including electricity, oil and gas, mining, forestry, manufacturing, information and communications technology, agriculture, finance and construction – Canadians have enormous potential to develop and export the cleaner technologies, products, and services that are increasingly in demand globally.

THE GENERAL POLICY CHALLENGE: Well-designed policies can support the growth of clean technology if they appropriately target the market, policy, and regulatory barriers to innovation, deployment, and adoption. Smart Prosperity’s Clean Innovation Framework⁴² offers policy guidance for supporting clean technology through the innovation cycle. In the current economic context, supporting clean technology can be done in three ways: direct fiscal spending, tax system measures, or the removal of regulatory “red-tape” to deploying projects⁴³.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: In the current context, not every clean technology is going to be a good fit to support timely jobs and investment. Some technologies, like green hydrogen, are too far up their learning and cost curves for the private sector to step in and competitively invest once public investment leaves the market⁴⁴. Others lack the standards and supply chains required to support their widespread adoption. In contrast, some technologies (including solar and wind generation) are fully commercialized and would benefit more from removing their market barriers to adoption than from increased public spending⁴⁵. Understanding which policy tools are the best fit for supporting which clean technologies will be critical in targeting policy supports.

Policies for clean technology adoption must also take into account where technology is manufactured. Job creation multipliers for policy measures will be lower if Canada purchases and installs clean technology manufactured outside the country. However, in the immediate aftermath of this crisis, the current size of Canada’s clean technology manufacturing sector will result in a need to rely on high volumes of imports to address demand. This recovery will require that two questions be considered to understand where measures that grow domestic clean tech manufacturing should be directed: One, what are the clean

⁴⁰ Global Commission on the Economy and Climate., 2018. [The New Climate Economy](#).

⁴¹ Smart Prosperity Institute, 2019. [8 reasons to build a clean economy now](#). Ottawa.

⁴²Smart Prosperity Institute, 2018. [Accelerating clean innovation in Canada](#). Ottawa.

⁴³Smart Prosperity Institute, 2020. [Green stimulus offers Canada a way forward for escaping the next recession](#). Ottawa.

⁴⁴Zhou, Y. & Gu., A. 2019. *Learning curve analysis of wind power and photovoltaics technology in US: cost reduction and the importance of research, development and demonstration*. Sustainability (11), 2310; DOI:10.3390/su11082310

⁴⁵ Richards, G., Noble, B. & Belcher, K. 2012. *Barriers to renewable energy development: A case study of large-scale wind energy in Saskatchewan, Canada*. Energy Policy. 42(1), 691-698. DOI: 10.1016/j.enpol.2011.12.049

technology manufacturing areas that Canada possesses a competitive advantage in today that can be advanced? Two, what are the conditions Canada needs to create to become more competitive in a given industry (i.e. lower costs of production, higher-skilled workforce, etc.)?

Finally, greater consideration in this recovery will need to be given to clean technology deployment and adoption in sectors where that has historically been a challenge. Capturing the productivity and employment benefits of a technology throughout the economy only occurs once it is used at scale. Supporting the most affected sectors in this crisis (SMEs, services, and retail) will mean lowering market barriers to investment/adoption, and administering funding through programs and institutions that are designed to be accessible for these groups.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON'T:

- **LIKELY TO BE TRUE:** Demand for cleantech products, technologies, and services will continue to climb domestically and globally in the coming decades⁴⁶.
- **LIKELY TO BE TRUE:** Investment in clean innovation will be primarily directed at technology investment and deployment, with minimal emphasis on changes to business models or practices.
- **LIKELY TO BE TRUE:** Private venture capital funding is likely to decline for clean technology start-ups and scale-ups, as risk-aversion has increased among investors.
- **LIKELY TO BE TRUE:** Other resources needed by clean technology start-ups and scale-ups, including talented young graduates and office space, are going to become increasingly available.
- **COULD HOLD TRUE:** The majority of clean technology used to reduce emissions or improve circularity within the 'timely' 18-month window will be manufactured abroad⁴⁷.
- **COULD HOLD TRUE:** Greater policy support for cleantech may be put on hold if the economic recovery is sluggish or public sector spending decreases in the coming years.

SUB-FRAMEWORK FOR ASSESSING IF A MEASURE SUPPORTS 'CLEAN INNOVATION'

- a. What specific clean technology or business practice change is that measure supporting?
- b. What will be the primary benefits of this measure?
- c. What is the target sector/demographic for this measure? Has consideration been given to the specific barriers it faces to investing in clean technology?
- d. Is the technology/practice supported sufficiently market-ready that private sector capital is likely to be crowded-in following the conclusion of this measure?
- e. If the measure is not market-ready, is it a good fit for deployments through pilot or demonstration projects?
- f. Does the measure support the development of technology or infrastructure that will enable higher levels of investment in low-carbon solutions moving forward?
- g. Does this measure create or advance a competitive advantage for Canada in the clean technology market?

⁴⁶Global Commission on the Economy and Climate., 2018. *supra*.

⁴⁷Provenzano, M., Wang, J. & Donegan, I., 2019. [International Trade in Environmental and Clean Technology Products by Origin and Destination, 2007 to 2017](#). *Environment Accounts and Statistics Analytical and Technical Paper Series*. Statistics Canada.

Section 3: Is the measure equitable, implementable, and feasible?

The third theme of this Framework emphasizes three important features necessary for translating smart ideas into a resilient recovery: Does the measure have a positive (or at least neutral) impact on vulnerable and marginalized populations, can it be implemented with existing institutions, and can barriers to its successful implementation be overcome? The first two themes in this framework emphasized identifying policies that aligned with economic and environmental best practices. However, translating good ideas into effective policy is not a theoretical exercise. This is why the Framework's third theme focuses on how to implement policy during a recession. Ensuring that measures take their distributional impacts on marginalized and vulnerable populations into account is step one, a point that is especially salient given the characteristics of this particular downturn. Second, if a measure cannot be implemented with existing institutional and administrative capacity, it may impact its timeliness or its ability to target a particular area and change its attractiveness. Finally, as noted previously, policy, regulatory and market barriers to implementation can dramatically impact the effectiveness of a measure. All of these actors should be accounted for and understood pre-implementation, either through changes in administration or by introducing complementary policies to help overcome them.

For recovery policies to support a bounceback in aggregate demand and a return to full employment, it has to roll out quickly and be administratively simple to deliver. These elements can be slowed by any number of factors, including jurisdictional issues, adoption delays from market barriers, or negative impacts on vulnerable populations that offset economic benefits. This framework aims to incorporate these considerations into discussions to help policymakers ensure clever ideas become smart policies that support their intended outcomes.

EQUITABLE: Does it have a positive or at least neutral impact on vulnerable, marginalized or underrepresented groups, such as Indigenous peoples and women?

CONTEXT: Marginalized and vulnerable communities across Canada experience the impacts of downturns differently. The populations most at risk in this context are⁴⁸: heavily dependent on part-time work or the informal economy; have limited capacity to cope and adapt to shocks; have inadequate access to social services; and, have limited to no access to technology and information. It is likely that, upon re-emerging from the extended lockdown period, the socio-economic concerns around economic insecurity, accessibility of care, and vulnerability to future crises will be disproportionately felt within these communities.

THE GENERAL POLICY CHALLENGE: This pandemic has exposed vulnerable and marginalized populations to two crises: a health crisis and an economic crisis. Each will exacerbate the other: economic declines have negative long-term impacts on health,⁴⁹ given the reduction in spending on health care that occurs in downturns. Pandemics also force companies to deplete their financial reserves and increase rates of business closures, negatively affecting workers and increasing lay-offs.

An additional policy challenge is that reducing vulnerability through employment for these demographics cannot be done by simply creating “any” jobs. Supporting equity within vulnerable and marginalized populations through employment involves supporting jobs with career prospects and benefits that improve economic well-being. This improves the resilience of the economic rebound and creates positive spillover benefits for the health and well-being of communities. In contrast, a resurgence dominated by part-time work may not offer the same robustness if it increases economic insecurity amongst the majority of re-employed workers.

Supporting accessibility will also be a priority. Ensuring marginalized and vulnerable populations have access to employment opportunities and community services will mean pairing measures with complementary policies that lower the structural or systemic barriers to labor force participation. Given that accessibility will look different in each community, measures will likely need to be co-designed and administered in collaboration with the communities and populations affected.

Finally, it is important to recognize that marginal and vulnerable populations are disproportionately impacted by the effects of climate change. Measures to reduce emissions, or to increase the climate resiliency of Canada will particularly benefit these groups.

⁴⁸The Regional Risk Communication and Community Engagement (RCCE) Working Group, 2020. [COVID-19: How to include marginalized and vulnerable people in risk communication and community engagement](#). UN Women and Translators without Borders. New York City.

⁴⁹McKee, M. & Stuckler, D. 2020. [If the world fails to protect the economy, COVID-19 will damage health not just now but also in the future](#). Nature Medicine. DOI: 10.1038/s41591-020-0863-y

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: Concerns around the impacts of the COVID crisis on gender equity, households below the poverty line, immigration, persons with disabilities, indigenous communities, and part-time workers, are well-placed.⁵⁰ The 2008-2009 recession hit older men harder than other demographics, and the subsequent economic rebound was largely supported by increased workforce participation from women and new Canadians that helped household incomes recover.⁵¹ The affected demographics have now switched (i.e. women are far more affected in this downturn), meaning policy development must now be tailored towards a new context.

This downturn can also be described as the first service-driven economic downturn in modern history.⁵² The majority of sectors that have been hit especially hard, including education and child care, retail, personal services, and restaurants, are dominated by female workers, part-time workers, and the already financially vulnerable. While the extent of economic impacts is unclear, early impacts noted that the hardest hit segment of the labour force in the crisis has been women under 25.⁵³ Women between 25-54 have also been unemployed at rates almost twice as high as men of the same age. Beyond young women, racialized minorities, new immigrants to Canada, and young people are also heavily represented in these roles.⁵⁴ Members of these groups have a disproportionately higher risk of losing income and fewer savings on average, making them especially vulnerable to crisis.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON'T:

- **LIKELY TO BE TRUE:** The decrease in female labour force participation will negatively impact education and health care outcomes across Canada.⁵⁵
- **LIKELY TO BE TRUE:** An economic recovery driven primarily through “low-quality” (part-time or contract) job growth will negatively impact equity outcomes in vulnerable and marginalized populations.⁵⁶
- **LIKELY TO BE TRUE:** Members of marginalized communities will be disproportionately negatively impacted by a recession and will require specific support to address these impacts.
- **COULD HOLD TRUE:** The current emphasis celebrating “essential workers” (i.e. public transit operators, grocery store workers, etc.) could continue in the coming years and prompt discussions for greater policy support for frontline workers and vulnerable populations.

⁵⁰Ravanera, C. “[Primer on the gendered impacts of COVID-19](#)”. Institute for Gender and the Economy. University of Toronto. Rotman School of Management April 2020.

⁵¹Yalnizyan, A. “[COVID-19’s impact: not recession, but a completely different economics](#).” Toronto Star. April 9 2020.

⁵²Ibid.

⁵³See March 2020 Labour Force Survey.

⁵⁴Burt, M. “[Most vulnerable to be hit hardest from the COVID-19 economic downturn](#).” Conference Board of Canada. March 23 2020.

⁵⁵Bhatia, A. “[Women and COVID-19: Five things governments can do now](#).” UN Women. United Nations. March 26 2020.

⁵⁶Thomson-Deveaux, A. & Best, R. “[Which workers are most vulnerable to the economic costs of the coronavirus?](#)” Five Thirty Eight. March 18 2020.

SUB-FRAMEWORK FOR ASSESSING IF A MEASURE IS 'EQUITABLE'

- a. Are employment opportunities offered by this measure inclusive, gender-balanced, and available to underemployed and vulnerable populations?⁵⁷
- b. Do the jobs created contribute to labour participation of Indigenous peoples, women, people with disabilities, or other historically excluded groups?
- c. Does the intervention create decent jobs, considering factors like average salary, right to unionize, safety and health, and durability?
- d. Do the jobs created also promote skill-building and opportunity for advancement?
- e. Does the intervention build or strengthen social protection systems over the long term including through climate resilience?
- f. Does this intervention respect the rights of Indigenous communities?
- g. Does this intervention increase the economic opportunity and well-being of Indigenous communities?
- h. Will the measure be designed, administered, or implemented directly by, or in collaboration with, members of vulnerable or marginalized communities?

⁵⁷ Questions A, B, C, D, E and F have been borrowed from the [World Bank](#)'s "Sustainability checklist for assessing economic recovery interventions" framework.

FEASIBLE: Can it be implemented with existing institutions, policies, and administrative capacity?

CONTEXT: Ensuring economic policy measures reach their intended destination quickly has an enormous impact on the level of demand and employment stimulated in targeted sectors and the subsequent pace of the economic recovery.

THE GENERAL POLICY CHALLENGE: The allocation mechanisms used to distribute funding during a recession can dramatically alter its impacts and effectiveness.⁵⁸ One factor influencing this is whether funding is allocated through existing institutions, or whether new bodies are created that are specifically designed to allocate that funding. Using existing institutions can allocate resources faster, but might be less effective at targeting a specific demographic if the existing distribution mechanism being used was not designed for that purpose. Setting up new bodies to oversee administration can be more time and resource-intensive, but can increase the overall efficiency of fund allocation and contain built-in data collection and assessment mechanisms that enable future evaluations.

Another factor influencing the impact of allocation is whether funding is administered solely through federal institutions (either through a single department/agency or as a multi-department/agency collaboration) or create partnerships with other parties (i.e. provincial governments, commercial banks, municipalities, utility companies, etc.).⁵⁹ If third-parties are engaged, policy mechanisms can potentially increase the speed and reach of distribution. However, this can reduce the level of government oversight on fund allocation.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: This crisis has impacted different demographics than the 2008-2009 recession. Given that measures will need to be targeted, the institutions used to distribute these funds will influence the rate of distribution and pace of the subsequent recovery. Supporting a higher volume of households or workers through more distributed measures differs from supporting direct “shovel-ready and shovel-worthy” infrastructure projects. For the latter, direct fiscal spending is relatively simple. When providing support to a wider and more diverse range of recipients, intermediaries may be required to administer funding programs to affected parties.

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON'T:

- **LIKELY TO BE TRUE:** Changes may need to be made to existing organizations, procedures, or capacities to accommodate the implementation of novel policy measures.
- **COULD HOLD TRUE:** The federal government could need to collaborate extensively with provincial and territorial governments, or institutions like municipalities and utilities that are operated/managed by the provinces, to distribute and administer measures.⁶⁰
- **COULD HOLD TRUE:** The success of the short-term income support allocated directly by the federal government during the pandemic could change the administrative/allocation model used to support spending, leading to greater direct federal administration of funding and less provincial cooperation/involvement.⁶¹

⁵⁸ Robson, J & Schwartz, S. “[Dear Canada Revenue Agency, please file my taxes for me!](#)” First Policy Response. April 22 2020.

⁵⁹Schertzer, R. & Paquet, M. “[How well is Canada’s intergovernmental system handling the crisis?](#)” Policy Options. April 8 2020.

⁶⁰Ibid.

⁶¹Usher, A. “[Perma-SIF](#)”. Higher education strategy associates. January 8 2020.

- **COULD HOLD TRUE:** Policy innovations in responsible and impact investing (i.e. social impact bonds,⁶² blended finance mechanisms,⁶³ micro-finance programs, etc.) make partnerships with banks or financial intermediaries to support implementing or administering recovery measures a newly attractive option for policymakers.

SUB-FRAMEWORK FOR ASSESSING IF A MEASURE IS 'FEASIBLE'

- a. Which institutions will be used to administer funding?
- b. Does the measure rely wholly on existing institutions, organizations, procedures, and capacities within the executing agency or agencies?
- c. Does the executing agency or agencies have experience implementing similar measures?
- d. Does the measure require the coordination and cooperation of multiple executing federal agencies? If so, how many and is there an established potential to effectively work together?
- e. Does the measure require the creation of new federal organizations, procedures, or capacities? How quickly can these be established and how much will it cost to establish them?
- f. Will this measure be delivered through federal government channels alone, or will partnerships with third-parties be required? Who are the third-parties?

⁶²International Finance Corporation, 2020. [Social bonds - illustrative use-of-proceeds case studies: coronavirus](#). IFC-WBG.

⁶³Convergence Blended Finance. "[COVID-19: How blended finance responds.](#)" April 8 2020.

IMPLEMENTABLE: If there are market or other barriers that hinder implementation, can they be overcome?

CONTEXT: Market barriers can directly reduce competition in the market, or serve to indirectly reinforce other barriers. This can be done by preventing entry into incumbent markets or increase the costs of adoption and deployment of new technologies. Barriers within the market can be structural, meaning they are a result of organic market activities (i.e. development of economies of scale, network effects, high start-up costs, etc.), or strategic, wherein rival corporate or government action have increased the costs of competing within a market (i.e. predatory pricing, high switching costs, fixed long-term contracts, etc).⁶⁴

In the context of a resilient recovery, low-carbon solutions face barriers to market entry, adoption, and deployment.⁶⁵ In the last decade, some have been addressed and others have become more cemented. Environmental externalities are now priced into the market through carbon pricing systems, and knowledge spillovers are better targeted through greater research funding for environmental solutions. However, other barriers continue to slow the development and growth of innovative clean technology companies and the adoption of their products.

THE GENERAL POLICY CHALLENGE: Governments have an important role to play in removing barriers to adoption and providing incentives that catalyze private innovation. However, measures aimed at supporting cleaner solutions will be less effective if they are not paired with complementary policies that lower or remove the market barriers present throughout the innovation cycle.

Given the need to pass measures within a short timeframe, a holistic assessment of all the regulatory and market barriers preventing the growth of cleantech to remove barriers systematically will not be possible. Policies will need to be designed in a manner that aims to overcome known market barriers using the solutions that exist today, either through the allocation of funding or the inclusion of complementary policies that remove barriers. This challenge needs to be undertaken in parallel with the maintenance of climate policies, discussed in section 4, that offer long-term market signals to direct investment. The key challenge here is simultaneously maintaining both long-term signals to inform investment decisions, and addressing the structural and strategic barriers to adoption.

THE POLICY CHALLENGES SPECIFIC TO THIS DOWNTURN: Some existing market barriers may become less prominent given a new understanding of the qualitative benefits of environmental solutions. The co-benefits of increased energy security, improved health outcomes, and greater economic resilience will likely increase public support for domestically-produced cleantech and allow for greater public spending to address barriers like higher capital intensity.

Lowering policy or regulatory barriers does face a challenge around potentially increasing regulatory complexity or policy uncertainty for investors. Attempts to remove or lower regulatory barriers by making substantial changes to environmental policy may further complicate the regulatory environment, or reduce the incentive to innovate by creating uncertainty about future policy.

⁶⁴Corporate Finance Institute, 2020. "[Barriers to entry: Obstacles to entering a specific market.](#)"

⁶⁵See Smart Prosperity Institute's [Clean Innovation Framework](#).

WHAT WE CURRENTLY KNOW (OR IS LIKELY TO BE TRUE), AND WHAT WE DON'T:

- **LIKELY TO BE TRUE:** Global awareness of supply chain vulnerabilities will increase calls to grow domestic manufacturing capacity, which will be amplified for solutions that offer desirable co-benefits.
- **LIKELY TO BE TRUE:** Support for both low-carbon and carbon-intensive sectors and solutions is likely given the job losses across all sectors.⁶⁶
- **COULD HOLD TRUE:** The push to lower market barriers to entry will need to strongly consider the role of enabling or complementary policies to support investment or align standards.

SUB-FRAMEWORK FOR ASSESSING IF A MEASURE IS 'IMPLEMENTABLE'

- a. What are the existing market or policy barriers that could limit the effectiveness of this measure? Are the barriers structural or strategic?
- b. Is the measure likely to prove sufficient on its own to overcome the existing barriers to its implementation or adoption?
- c. Will other policies, such as market-distorting subsidies for substitute products or services, distort or reduce the impacts of this measure?
- d. If complementary policies are included in a recovery measure, will they have an impact on uptake rates or volumes within 18 months? If not, what is the timeframe in which they could help overcome barriers?
- e. Will broader market barriers or trends, such as trade protectionism and digitization, decrease the effectiveness of this measure?

⁶⁶Smart Prosperity Institute. "[Ottawa's bail-outs need to help airline and oil and gas sectors grow greener.](#)" April 8 2020.

About the Resilient Recovery Project

When Canada turns the corner on the COVID-19 health crisis, the nation will make a once-in-a-generation investment in economic recovery. That investment needs to kick start growth and jobs right away, while also continuing Canada's progress toward building a stronger, cleaner economy.

The Resilient Recovery Project a Smart Prosperity Institute initiative, is investigating how Canada's recession spending can support a low-carbon, resource-efficient, and sustainable economic recovery. The Project features regular articles and analysis from our world-leading international research network, business and civil society CEOs, and in-house experts.



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