Navigating the COVID-19 Socio-economic Shock:

New Higher Risk Scenario Supplement

September 2020

This report was commissioned by the
Residential and Civil Construction Alliance of Ontario (RCCAO)

CANADIAN CENTRE FOR
ECONOMIC ANALYSIS

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About This Report

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SUPPLEMENTAL ANALYSIS: SEPTEMBER 2020

SUMMARY

This supplementary analysis supports the June 2020 report, "Navigating the COVID-19 Socio-economic Shock: How infrastructure investments will facilitate future growth in Ontario," prepared by CANCEA. To mitigate the risk of longer-term job losses and tax revenue declines, a Preferred Scenario was recommended where the Federal Government contributes additional funds to cover a portion of municipal operating deficits. Since then, there have been reports that municipalities are facing even more dire operating budget shortfalls. As such, a Higher Risk Scenario was developed to show the negative consequences of underinvestment in state-of-good-repair and other infrastructure projects[1].

$5.2 billion

federal infrastructure at risk

89,700

More Ontario jobs at risk over 30 years

$23 billion

government revenue at risk

-4.7%

rate of return for governments

This analysis demonstrates that the risks are magnified if the Federal Government delays or rolls back infrastructure investment. If $5.2 billion less is invested over the next five years, then Ontario will be at risk of having an average of 89,700 fewer jobs over the next 30 years and a total of $23 billion in government revenue will be at risk over the next decade.

The short-term reduction in infrastructure investment has an annual negative return of about 4.7% per annum, given the foregone benefits exceed the reduction of investment over time. This is largely due to the inhibited growth of the population and the economy that it can support.

The results of this analysis are not intended to dictate public infrastructure investment policy in Ontario, but rather to emphasize the potential economic risk that Ontario's employees and employers bear when long-term infrastructure trends tend towards persistent underinvestment.

[1] Ontario mayors call for COVID-19 relief funding to prevent tax increases https://ca.news.yahoo.com/ontario-mayors-call-covid-relief-151323356.html

BACKGROUND

The June 2020 Report examined the implications of Ontario infrastructure investment being at risk due to the current COVID-19 crisis and consequent municipal operating budget shortfalls.

A risk scenario was evaluated which assumed:

- **If** the Federal and Ontario governments adjust their infrastructure spending to the economic downturn and contribute the same share of GDP to infrastructure as they had pre-crisis (0.4% and 2.4%, respectively)[2] and municipal operating deficits are covered using funds from Ontario's capital budget
- **Then** Ontario risks significantly lower employment over the next decade, with an average of 55,000 fewer jobs (0.7% less), as well as $8 billion and $12 billion less in Federal and Provincial government revenue over the next decade compared to the status quo. These losses continue to grow beyond 10 years.

Since the June Report was issued, and despite announcements made by the Federal and Ontario governments[3], a concern has been emerging amongst stakeholders that infrastructure investment may be at an even higher risk, beyond the levels first anticipated by the original risk scenario[4]. Under that scenario, the Federal Government is expected to invest $16 billion in Ontario infrastructure over the next five years, which represents $2.6 billion less than what otherwise would have been expected if the COVID-19 crisis had not occurred.

The objective of this analysis is to examine the potential consequences for Ontario employment and government revenues if the Federal Government were to invest less in Ontario infrastructure over the next five years. As a proxy of either delays or reduction in Ontario infrastructure investment by the Federal Government, the reduced investment amount of $2.6 billion was chosen to create a "Higher Risk Scenario." That is, given this amount is equal to reduction in federal investment in the June Report risk scenario, the "Higher Risk Scenario" assumes a total of $5.2-billion reduction in Federal Government investment in Ontario infrastructure over the next five years, as compared to levels otherwise expected if the COVID-19 crisis had not occurred.

While it is recommended that this analysis be read in conjunction with the June Report, the key recommendation is that the Preferred Scenario would be the best way to mitigate the risk of ongoing underinvestment. The Preferred Scenario recommended the Federal Government contribute additional funds to cover a portion of municipal operating deficits. Specifically, the Preferred Scenario is when the

[2] Note that while investment as a percentage of GDP may be a useful metric for governments in times of economic stability, its use during times of economic downturn threatens the stability and predictability of infrastructure investment.

[3] Safe Restart Agreement of $19 billion to help provinces and territories safely restart their economies and make our country more resilient to possible future surges in cases of COVID-19, July 2020; $3.3-billion COVID-19 Resilience funding, August 2020.

[4] Ontario mayors call for COVID-19 relief funding to prevent tax increases https://ca.news.yahoo.com/ontario-mayors-call-covid-relief-151323356.html

Federal and Ontario governments stick to their pre-crisis infrastructure investment plans and the Federal Government makes an additional contribution to Ontario's capital budget, earmarked for municipalities, that covers 56% of municipal operating deficits. In this scenario, employment increases relative to the base case, as do the revenues of the Federal and Ontario governments.

RESULTS

The medium- and long-term effects of various infrastructure investment decisions by the Provincial and Federal governments were simulated using CANCEA's socio-economic analysis platform which uses historical data to simulate the behaviour of individuals, households, governments and firms. Plausible infrastructure investment scenarios were simulated within the platform for the two scenarios below:

1) Risk Scenario: The Federal and Ontario governments adjust their infrastructure spending to the economic downturn and contribute the same share of GDP to infrastructure as they had pre-crisis (0.4% and 2.4%, respectively), with municipal operating deficits being covered using funds from Ontario's capital budget.
2) Higher Risk Scenario: The Federal Government further adjusts its investment in Ontario infrastructure from 0.4% of expected Ontario GDP to 0.33%, which equals $2.6 billion less than the risk scenario described above. Ontario continues to invest at 2.4% of expected Ontario GDP and municipal operating deficits are covered using funds from Ontario's capital budget.

These two scenarios were modelled and compared to a "status quo" baseline in which the Provincial and Federal governments take no new action – they continue to invest the same share of GDP in infrastructure as they had pre-crisis – and municipalities cut costs to prevent deficits. The Risk Scenario results in significantly lower employment and government revenue over 30 years. Under the Risk Scenario, over the next decade, the Province risks having an average of 55,000 fewer jobs (0.7% less), as well as $8 billion and $12 billion less in Federal and Provincial government revenue compared to the status quo. These losses increase even more after 30 years. Key outcomes for this scenario are presented in the table below.

10- and 30-year outcomes of the Risk Scenario compared to baseline

Risk	10 Years	30 Years
Average Change in Employment	-55,000 jobs	-79,000 jobs
Cumulative Federal Government Revenue decline	-$8 billion	-$36 billion
Cumulative Ontario Government Revenue decline	-$12 billion	-$51 billion

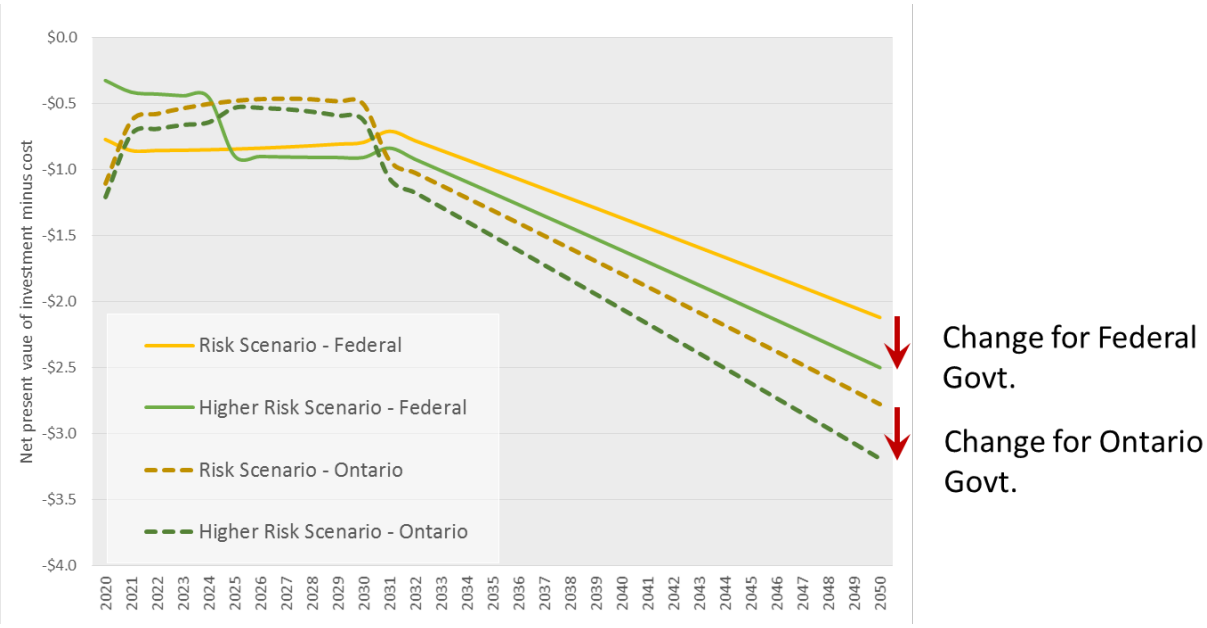
The Risk Scenario from the June 2020 report showed how the reduction in benefits of infrastructure investment exceed the reduction of costs over the long term. This is not surprising, given infrastructure investment has a positive rate of return once population and economic scale changes. The Higher Risk Scenario simply accelerates this degradation as can be seen in the table below.

10- and 30-year outcomes of the Higher Risk Scenario compared to baseline

Risk	10 Years	30 Years
Average Change in Employment	-60,300 jobs	-89,700 jobs
Cumulative Federal Government Revenue decline	-$9.1 billion	-$40 billion
Cumulative Ontario Government Revenue decline	-$13.1 billion	-$58 billion

The Higher Risk Scenario results in a further 13.5% increase in jobs at risk for the long term (30-year average). Over the next decade, the Province has an average of 60,300 jobs at risk (0.79% less on average), as well as $9.1 billion and $13.1 billion less in Federal and Provincial government revenue respectively, compared to the status quo. These losses increase even more after 30 years, as shown in the figure below.

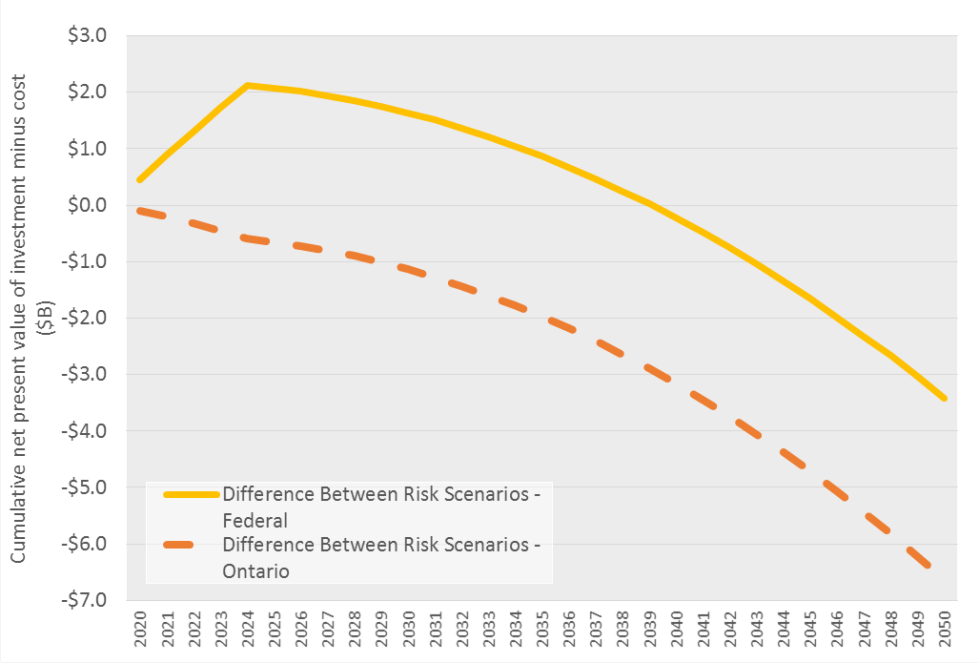
Net present value of taxation revenues from investment less all costs



The Higher Risk Scenario demonstrates that while the Federal Government is investing $2.6 billion less in Ontario infrastructure in the first five years, it receives $4 billion less in Federal Government revenues over 30 years, with the Ontario government receiving $7 billion less. That is, for $2.6 billion in lower Ontario infrastructure investment by the Federal Government, 4.2 times that amount ($11 billion) is lost in total taxation revenues. This is a negative return of about 4.7% per annum that is largely due to the inhibited growth of the population and the economy that it can support.

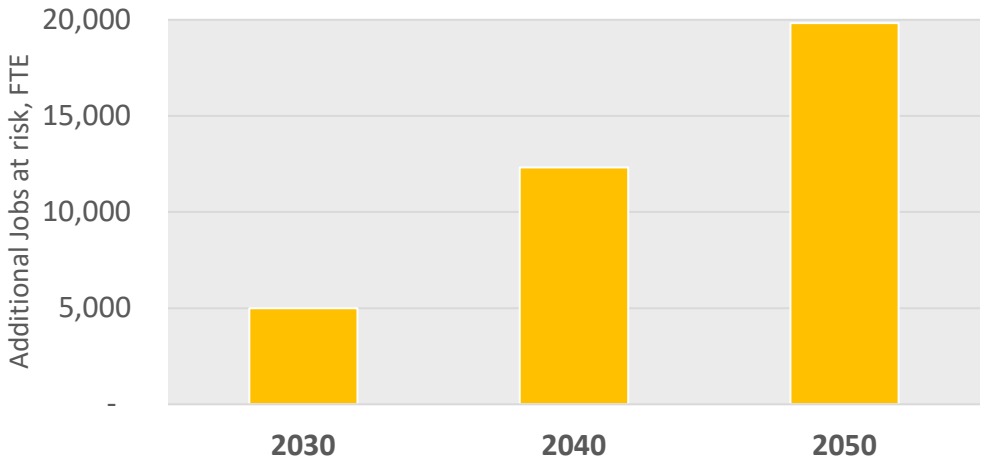
The cumulative annual net present values of the difference between the Risk Scenario and the Higher Risk Scenario is shown in the figure below. The yellow line indicates the incremental increase in risk to the Federal Government if it adjusts its investment in Ontario infrastructure from the 'risk scenario' to the 'higher risk scenario'. The lower dashed line highlights that the risk is even greater for the Ontario Government.

Difference between Risk Scenario and Higher Risk Scenario
Net present value of taxation revenues from investment less costs



The employment outcomes also differ significantly between the two scenarios, with the difference growing in time, as can be seen in the figure below. Shown is the difference between jobs at risk under the Higher Risk Scenario and the previously reported Risk Scenario in the June Report.

Additional jobs at risk from the Higher Risk Scenario compared to Risk Scenario



CONCLUSIONS

The current COVID-19 crisis continues to affect Ontario's economy and cause employment losses. At this crucial juncture, holding back on infrastructure investments in Ontario can exacerbate the effects of the crisis and hamper our recovery.

The analysis demonstrates that every infrastructure investment dollar counts. If the Federal Government were to decrease its commitment to structural Ontario infrastructure, even more jobs and taxation revenues will be put at risk. Moreover, the analysis shows that the economic benefits associated with infrastructure investments are best appreciated in the long term. While the additional jobs at risk by 2030 is estimated at 5,000, there could be 20,000 jobs at risk by 2050.

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